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A Man with a Tail—Lord Monboddo

OSCAR SHERWIN*

IN flasks garlanded with roses as Anacreon was wont to do at the court of Polycrates of Samos and with roses also bestrewing the table (for did not Horace love to have it so at his beautiful home among the Sabine Hills?), Lord Monboddo fortnightly entertained his friends at what he called "learned suppers" in imitation of the Ancients. The diet of strange fare included Spartan broth and mulsum (sweetened wine). The Bordeaux was excellent. Among the guests was Lady Anne Lindsay singing *Auld Robin Gray* while the light of the company was Lord Monboddo's beautiful and fragile younger daughter.[1]

> The best society whether in respect of rank or literary distinction [said Scott] was always to be found in St. John's Street, Canongate. The conversation of the excellent old man, his high, gentleman-like and chivalrous spirit, the learning and wit with which he defended his fanciful paradoxes and the kind and liberal spirit of his hospitality must render these noctes coenaeque dear to all who, like the author (though then young) had the honor of sitting at his board.[2]

Perhaps the most remarkable thing about Monboddo was not his claret flagons garlanded with roses but his "anticipative wisdom," his prevision of future theories as to the origin of man and his descent or ascent from lower types. But Monboddo deserves credit, too, for pointing out the historical method of dealing with all problems and for championing the cause of Greek scholarship when the literature and thought of the ancient world was of little or no significance for his countrymen. His *Of the Origin and Progress of Language* (6 vols., 1773-92) is primarily an eloquent plea for a more enthusiastic study of classical languages and litera-

* City College of New York.

1 William Knight, *Lord Monboddo and some of his contemporaries*, London, 1900, p. 17; W. Forbes Gray, *Some old Scots judges*, London, 1914, p. 55; Edward Clodd, "Dr. Johnson and Lord Monboddo," *Fortnightly Review, London*, 1917, *n.s. 101*, 852; Alexander F. Tytler, Lord Woodhouselee, *Memoirs of the life and writings of Henry Home of Kames*, Edinburgh, 1814, I, 250.

2 Sir Walter Scott, *Guy Mannering*, London, 1875-77, p. 386, note. In the text Pleydell says to the Colonel: "'And we will anticipate our usual hour of supper,' said the Colonel. 'With all my heart,' said Pleydell, 'providing I do not lose the ladies' company a moment the sooner. I am of counsel with my old friend Burnett; I love the *coena*, the supper of the ancients, the pleasant meal and social glass that wash out of one's mind the cobwebs that business or gloom have been spinning in our brains all day.'" (p. 318)

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ture. All admit he was one of the most extraordinary men who ever sat on the judgment seat.[3]

[3] Knight, *op. cit.*, p. 1; Gray, *op. cit.*, p. 41. James Burnett, Lord Monboddo, was born on October 14, 1714 of a family more ancient than opulent. His paternal ancestors could be traced back to King Robert the Bruce. His father was proprietor of a small estate in Kincardineshire known as Monboddo—"A wretched place, wild and naked, with a poor old house," so Boswell describes it. (James Boswell, *Journal of a tour to the Hebrides*, ed. by F. A. Pottle and Chas. H. Bennett, New York, 1936, p. 53.) At fourteen he was sent to the University of Aberdeen where he was influenced by Dr. Francis Skene and Principal Blackwell, who revived the study of Greek in the north of Scotland. Blackwell was also engaged in the investigation of primitive man and primitive poetry. Monboddo graduated M.A. at Aberdeen and then proceeded to Edinburgh for the study of law. Next he went to Groningen and Leyden. Throughout life he had a profound contempt for those who had not learned law from the great Dutch jurists. In 1737 he was admitted to the study of law. (Lois Whitney, "English primitivistic theories of epic origins," *Modern Philology*, 1924, *21*, 338; John Ramsay, *Scotland and Scotsmen of the eighteenth century*, 2 vols., Edinburgh, 1888, I, 291-2; Henry G. Graham, *Scottish men of letters in the eighteenth century*, London, 1908, pp. 188-9.) He won his spurs in the most famous litigation of the century, the great Douglas case. As counsel for Archibald Douglas, he acquitted himself so well as to make his elevation to the Lords of Session inevitable. In 1767 he assumed the title of Lord Monboddo. Boswell admits that when the Douglas case was first tried in the Court of Session, Monboddo made such an admirable speech that it was in vain for the others to try more. At the first trial Monboddo lost, but on appeal the House of Lords, convinced largely by his argument, reversed the decision of the Scottish court. Boswell headed the mob which smashed the windows of the adverse judges. (*Private papers of James Boswell from Malahide Castle*, prepared by Geoffrey Scott and F. A. Pottle, Mount Vernon, N. Y., 1928-34, VII, 197; *Letters of James Boswell*, ed. by Chauncey B. Tinker, Oxford, 1924, II, 272, note; *Dorando: a Spanish tale* is a thinly veiled allegory of the cause célèbre. See also Alexander Carlyle, *Autobiography*, Edinburgh, 1861, 3d ed., p. 512; *The Douglas case*, ed. by A. Francis Stuart, Glasgow and Edinburgh, 1909, pp. 18, 23-29; Knight, *op. cit.*, pp. 5-7; Graham, *op. cit.*, p. 190; *A summary of the speeches, arguments, and determinations. . . upon that important cause.* By a Barrister at Law, Edinburgh, 1767, pp. 42, 197-215; Hugh Mac Diarmid, *Scottish eccentrics*, London, 1936, pp. 203-04. Mac Diarmid's version of Monboddo's speech differs from that given in the other collections. The report of the speeches as given by William Anderson and printed by Balfour, Auld, and Smellie, Edinburgh, 1768, this writer has not been able to obtain. According to A. Francis Stuart, *op. cit.*, p. 189, the speeches in Anderson's book are totally different both in argument and style from those printed "By a barrister." *A state of the evidence*, London, 1769, calls Anderson's version neither exact nor genuine.) Monboddo's wife, a beautiful woman, whom he had married in 1760, died in giving birth to her third child. His only son died at an early age. His eldest daughter, to his disappointment, married his clerk. Elizabeth Burnett, the second daughter, remained single to nurse and cheer him in old age. Her remarkable beauty was the talk of Edinburgh. To Burns she was "the most heavenly" of all God's works, among the wonders of the city, nothing like her in "Beauty, Grace, and Goodness since Milton's Eve on the first day of existence." Elizabeth died of consumption in 1790. (Chambers' *Biographical dictionary*, I, part 2, pp. 425, 426; John Kay, *A series of original portraits*, Edinburgh, 1838, 4 vols., II, 136-7; *Private papers of James Boswell from Malahide Castle*, XIV, 149-50; *The Scots Magazine*, Edinburgh, 1799, *61*, 728; *Annual Register, London*, 1801, *61*, 365-6; Robert Burns, *Complete writings of Robert Burns*, Boston, and New York, 1927, III, 270-2; VII, 102, IX, 7-8, X, 96-8; Robert Burns, *Life and works*, ed. by Robert Chambers, rev. by William Wallace, New York, 1896, II, 25; Robert Burns, *The letters of Robert Burns*, ed. by J. De Lancey Ferguson, Oxford, 1931, II, 359, Appendix; Margaret F. Dott, *Robert Burns in Edinburgh, 1786-87*, Edinburgh, 1888, pp. 22-7; Graham, *op. cit.*, p. 196; W. Forbes Gray, "A forerunner of Darwin," *Fortnightly Review, London*, 1929, January, *n.s. 125*, 116-17.) Monboddo diligently cultivated his literary and social friendships, was a lion in the salons of Miss Alison Rutherford, author of *The flowers o' the forest*, and Mrs. Montagu, and was reported to have proposed twice to Garrick's widow. Among his intimates were James Thomson the poet, Lord Lyttelton, David Mallet, who tried to filch from Thomson the honor of having written *Rule Britannia*, and Dr. John Armstrong, who cultivated medicine and the Muses. (Carlyle, *op. cit.*, pp. 461-2; Ramsay, *op. cit.*, I, 351, 358; Gray, *op. cit.*, 45-6; *Private papers of James Boswell from Malahide Castle*, XIV, 174; Horace Walpole, *The letters of Horace Walpole*, ed. by Mrs. Paget Toynbee, Oxford, 1914, XII, 305, 360; William Roberts, *Memoirs of Hannah More*, New York, 1835, I, 146-7, 241; Annette M. B. Meakin, *Hannah More*, London, 1911, pp. 155, 167-8.)

Monboddo is credited with having been a wise, independent, impartial judge, the most learned of his legal contemporaries. He often differed from his brethren, but was seldom if ever reversed by the House of Lords. Lord Braxfield gave him credit for clarity of opinion: "He speaks nonsense to be sure, but you always understand what he would be at." To another he was "rather like an old stuffed monkey dressed in a judge's clothes than anything else." To Henry Mackenzie, however, Monboddo's mind was as sharp as his nose.[4]

But he earned more fame by his eccentricities than by his acuteness and learning. He was a prominent member of the Select Society founded in 1754 in imitation of the acadèmes then common in the larger towns of France. It was partly a debating society for discussion of topics of the day and partly a patriotic society for the promotion of arts, sciences, and manufactures of Scotland. "The Select Society," writes Hume to Allan Ramsay, "has grown to be a national concern. Young and old, noble and ignoble, witty and dull, laity and clergy, all the world are ambitious of a place amongst us and on each occasion we are as much solicited by candidates as if we were to choose a Member of Parliament." But Hume adds: "Monboddo's oddities divert."[5]

If Monboddo's personal habits were frugal and plain, they were also considered odd. He was a strenuous advocate of sunlight and fresh air at a time when such things were not fashionable and he believed wholeheartedly that cleanliness was next to godliness. Boswell walking in the meadow with a friend met Monboddo who

[4] Gray, *op. cit.*, pp. 49-50; Henry Mackenzie, *The anecdotes and egotisms of Henry Mackenzie*, ed. by H. W. Thompson, Oxford, 1927, pp. 110-11; Robert Chambers, *Traditions of Edinburgh*, London and Edinburgh, 1847, pp. 127-8; Henry Cockburn, *Memorials of his times*, Edinburgh, 1856, pp. 111-12.

[5] David Hume, *The letters of David Hume*, Oxford, 1932, I, 219-21; Carlyle, *op. cit.*, p. 312; John Rae, *Life of Adam Smith*, London, 1895, pp. 107-09. No subject was taboo except revealed religion or Jacobitism. An original membership grew in five years to 130 and included such celebrities as Hume, Robertson, Adam Smith, Lord Kames, Hugh Blair, Lord Loughborough, Lord Hailes, and others. Undoubtedly the debates rubbed off all corners by collision and were brilliant, but the Society was devoted to the encouragement of home industry as well as art, and prizes were offered not only for the best printed and most correct book, but for the best soap, the best cheese, the best tun of whiskey, and a prize to the person who would cure the greatest number of smoky chimneys. Useful and active as it was, the Society died within ten years of its origin through loss of novelty. (Rae, *op. cit.*, pp. 113-20.)

One of Monboddo's so-called oddities was just plain common sense. Because of deafness he dispensed justice not from the bench but from the well of the court. "Our brother Monboddo," said Auchinleck, "who may say with the psalmist, 'De profundis clamair' is of opinion, etc." (Mackenzie, *op. cit.*, p. 111.) Another oddity made much of: he despised carriages ("close boxes," he called them) because he thought it degrading to be dragged at the tails of horses instead of being mounted on their backs and secondly because carriages were not universal among the ancients. And so mounted on his favorite nag Alburac he scoured the country in all weathers. (Gray, *op. cit.*, pp. 47, 53-4; Knight, *op. cit.*, p. 10.)

told him he was sunning himself like a fly which when laid in the sun will revive.[6] He never tired of preaching the hygienic gospel to a perverse generation. Summer and winter on rising at six he would take a cold bath in a house erected for the purpose at some distance from his mansion near a running stream which supplied it with water. Similarly, before retiring he enjoyed an "air bath"—walking about for some minutes naked in a room filled with fresh and cool air—and then anointed himself with oil in imitation of the ancients. But the lotion used was not the oil of the ancients but "a saponacious liquid composed of rose water, olive oil, saline, aromatic spirit, and Venice soap, which when well mixed resembles cream." This he applied at bedtime before a large fire. Besmeared with the formidable concoction he slept the sleep of the just.[7] ("That man of Greece who oils himself every day," Dr. Johnson said in an unintended pun.)[8] On Monboddo's awakening at four he again walked in the room naked with the window open after which he returned to bed and slept two hours more. Dr. Johnson observed, "I suppose, Sir, there is no more in it than this: he awakes at four and cannot sleep till he chills himself and makes the warmth of the bed a grateful sensation."[9] Dundas (the "uncrowned King of Scotland" because of his enormous influence north of the Tweed) was bombarded with the ancient prescription. He even tried to make a convert of Pitt.[10]

Monboddo idealized the world of antiquity. The youth of the world was its age in wisdom. The Greeks were our superiors in philosophy, science, art, physical characteristics of strength and stature, and longevity. Beyond Greece stretched a quagmire of darkness. For all philosophic truth we must go back to Plato and Aristotle. "The greatest discovery in science ever made by any one man is the discovery of the syllogism by Aristotle."[11] The return to antiquity was to a large extent a return to authority. But it was accompanied by a contempt for Latin and all modern literature. Modern philosophic thought could boast no name of conspicuous eminence unless it was that of his "worthy and learned friend Mr. Harris" whose *Hermes* was a work that would be "read and ad-

6 *Private papers of James Boswell from Malahide Castle,* XV, 135.

7 Gray, "A forerunner of Darwin," p. 114; Robert Chambers, *Biographical dictionary of eminent Scotsmen,* Glasgow, 1837, 4 vols., I, 427; *The Scots Magazine,* 1799, *61,* 730; *Annual Register,* XLI, 365; Knight, *op. cit.,* p. 12.

8 *Private papers of James Boswell from Malahide Castle,* XIV, 174; P. W. Clayden, *The early life of Samuel Rogers,* Boston, 1888, p. 149.

9 James Boswell, *Life of Johnson,* 6 vols., ed. by G. B. Hill, Oxford, 1887, III, 168.

10 Gray, "A forerunner of Darwin," pp. 114-16, 118.

11 Knight, *op. cit.,* pp. 22, 26, 50.

mired so long as there is any taste for philosophy and fine writing in Britain."[12] ("Who is this Harris?" asked Charles Townshend, Bute's Secretary at War, when Harris, a newly elected M.P., took his seat. "He has written on grammar and virtue," was the reply. "He will find neither here," rejoined the wit.)[13] Monboddo's estimates of "the vain pretenders to philosophy of our time" are extraordinary. Locke's *Essay Concerning Human Understanding* was "no other than a hasty collection of crude, undigested thoughts by a man who thought and reasoned himself upon subjects of the greatest difficulty and deepest speculation without the assistance of learning."[14] The language which Locke put into the mouth of philosophy was "mere stammering . . . as contemptible as the matter which he has made her utter."[15] Of Bishop Berkeley's theory: "It is as poor a piece of sophistry as ever I saw composed by a man who seems to be in earnest."[16] To Samuel Horsley the mathematician on David Hume: "The great obstruction to all Ancient Philosophy in this country is first the want of the knowledge of the language of it, and secondly the hold which the wretched philosophy of David Hume has got of the minds of men here."[17] He admired the rolling periods of Demosthenes, Thucydides, Cicero, Milton, and Clarendon rather than what he called the memoranda or "short hand" writing of Voltaire.[18] There is a good deal of one-sided pessimism in his saying, "Nothing could save us and all Europe from absolute destruction and annihilation but the study of ancient men and ancient manners by those who govern us."[19]

We can understand Monboddo's admiration of "Hermes" Harris. *Hermes, a Philosophical Enquiry Concerning Universal Grammar* was a treasury of out-of-the-way quotations but also a prolonged protest against "the bigoted contempt of everything not modern"

12 Gray, *Some old Scots judges*, p. 67.

13 Austin Dobson, "Mr. Harris of Salisbury," *The National Review*, April, 1918, p. 210.

14 Knight, *op. cit.*, p. 30.

15 *Ibid.*, p. 49.

16 *Ibid.*, p. 51.

17 *Ibid.*, p. 118. Hume expressed disgust at the "malicious" curators of the Edinburgh University Library (Monboddo was one of the curators) who ordained that three French books: *Les contes de La Fontaine, L'histoire amoureuses des Gaules*, and *L'écumoire* be struck out of the catalogue of the library as indecent and removed from the shelves. A public library, vehemently stated Hume, purged of every book of which any portion might offend the taste of a well-regulated mind would unfortunately be barren indeed. (John H. Burton, *Life and correspondence of David Hume*, Edinburgh, 1846, I, 394-5.)

18 Knight, *op. cit.*, p. 26; Gray, *Some old Scots judges*, p. 65.

19 Knight, *op. cit.*, pp. 28, 215.

and a serious defence of the wisdom of the ancients[20]—the Greek tongue "made for all that is great and all that is beautiful."[21]

> To be competently skilled in ancient learning is by no means a work of such insuperable pains. The very progress itself is attended with delight and resembles a journey through some pleasant country where every mile we advance new charms arise. It is certainly as easy to be a scholar as a gamester. . . .[22]

Not only was Monboddo's intellectual discipleship to ancient theory complete but his slavery to Greek and Latin canons of criticism was absolute. It led him to prefer Home's tragedy of Douglas to any of Shakespeare's dramas. He laments that Shakespeare "knew so little of the nature of poetry" and that he had been set up as a standard for "the English taste in poetry." All the merit he can allow Shakespeare is that he was "the best mimographer that ever wrote."[23] The contrast between Home and Shakespeare is drawn out in detail, but it is wretched criticism from first to last. (Perhaps the praise of *Douglas* was based on the Scots' conviction of their literary superiority over the English. Even Thomas Gray, the most impeccable critic among "the Barbarians who inhabit the Banks of the Thames," was "greatly struck" with the tragedy.)[24]

Monboddo did perform a much needed service in directing men's minds to the ancients, but to despise all philosophy not based on their teaching was foolish. His assertion that the race had degenerated mentally, morally, and physically was curiously illogical when taken in connection with his admission of the animal ancestry of man. The ascent and not the descent of man was a natural corollary of the conclusion he had reached. Perhaps Monboddo's bias towards paradox prevented him from being the most sympathetic of men among his contemporaries. Yet all felt him to be a man of power.[25]

The classicism of Milton was an unfailing passport to Monboddo's favor. His comments here are just, refreshing—a cooling antidote to the fetish of Johnson worship. Milton was "the greatest

[20] James Harris, *Hermes*, London, 1786, preface, xv-xvi.

[21] *Ibid.*, pp. 423-4.

[22] *Ibid.*, preface, pp. viii-ix, 424-6.

[23] Gray, "A forerunner of Darwin," p. 121.

[24] Thomas Gray, *Correspondence*, ed. by Paget Toynbee and Leonard Whibley, Oxford 1935, II, 515; Ernest C. Mossner, *The forgotten Hume*, New York, 1943, pp. 46, 64-5. "One Douglas lives in Home's immortal page,/But Douglases were heroes every age." ("Scots Prologue for Mr. Sutherland," Burns, *The complete poetical works of Robert Burns*, Boston and New York, 1897, p. 151.)

[25] Knight, *op. cit.*, pp. 29, 21-2. See disputes with Lord Kames in *Private papers of James Boswell from Malahide Castle*, XIV, 44-5, XV, 289-90; Gray, *Some old Scots judges*, p. 60; Graham, *op. cit.*, p. 181; Knight, *op. cit.*, p. 28.

writer both in verse and prose that we have in our language . . . the only poet in English that can be compared with Homer," who represented to Monboddo "the quintessence of all the flowers of literature."[26] Of Milton's prose he says:

> I know it is by many thought to be harsh, obscure, and perplexed, and so I know it must appear to those who are not learned. But Milton wrote for a learned age and I am persuaded his style was not then obscure, otherwise he would not have been employed so much by the parliament and Oliver Cromwell to write on public business."[27]

Of the letters he wrote in the name of the Commonwealth and Oliver Cromwell to sundry kings and states: "They were as good letters of business as ever were written." Milton excelled in the rhetorical style. "The speeches of the *Paradise Lost* . . . are out of all degree of comparison the best orations we have in English."[28] He compares him to Thucydides and then goes on:

> As Thucydides' style is not to be understood except by a very good Greek scholar, so neither is Milton's (though not near so obscure in English as Thucydides is in Greek) to be perfectly understood, except by a scholar who has formed his taste of good writing upon the ancient masters of the art. It was no wonder, therefore, that such a critic as Dr. Johnson, who in my opinion was neither a scholar nor a man of taste, should pronounce among the other oracles which he has uttered from his tripod, that Milton does not write English, but a Babylonian dialect."[29]

But the Doctor, who was not a Greek scholar, could not read the Halicarnassian's critical works in the original.

Monboddo used the edition of Milton's prose works in three volumes in folio printed in Amsterdam in 1698. He complained of the errors of the press in it, but the book was so rare "that I could not find it when I wanted it (such is the taste of the age) in the shop of any bookseller in London. In this manner so great a treasure of learning, arguments, and words may be said to be lost to the public."[30]

Dr. Johnson had not "genius enough to comprehend even the beauties of Milton."[31] Monboddo was pained and surprised that

> the people of England should have born the words that Dr. Johnson has made and the reflections that he has thrown out upon an author who does so much honor to modern times and to the English nation in particular. The commendation of the *Paradise Lost* with which he concludes his life of

[26] Lord Monboddo, *Of the origin and progress of language*, Edinburgh, 1774-92, 2d ed., V, 253; Knight, *op. cit.*, pp. 214, 262.
[27] *Of the origin and progress of language*, V, 254.
[28] *Ibid.*, V, 255-6.
[29] *Ibid.*, V, 260-1.
[30] *Ibid.*, V, 260n.
[31] Knight, *op. cit.*, p. 214.

Milton is I think more absurd than his censures of him and so ridiculous that if I had had a better opinion of the Doctor's critical talents, I should have imagined that he said it by way of irony and ridicule of Milton."

Then Monboddo adds: "If Dr. Johnson had been but the twentieth part the tythe of a critic," his judgments would have been diametrically different.[32]

When Dr. Johnson endeavored to show that Milton's Latin was bad, Monboddo was in doubt whether the Doctor was even a complete Latin scholar in the common sense of the word, "though he had not only learned it as other men do, but taught it."[33] With a parting shot in a footnote:

> The Doctor understood no science . . . he was ignorant of what I call the ABC of science, I mean the principles of geometry, for in his Dictionary he has defined a Theorem to be *a Position laid down as an acknowledged truth* plainly confounding it with an axiom or self-evident proposition.[34]

Undoubtedly national pride helped to determine the tenor of Monboddo's statement on Dr. Johnson.

But Monboddo's love of Milton was not entirely free from crotchets. Because the subject was better chosen, *Comus* was "the best poem in my opinion he ever wrote."[35] The author who came nearest to Milton in blank verse was Dr. Armstrong in his *Art of Preserving Health*. "The diction is more splendid than even of Milton's *Paradise Lost*."[36]

Monboddo's *Antient Metaphysics,* published anonymously in six volumes, 1772-79, is a glorification of Greek idealism as opposed to Hume and the other empiricists. The work was prepared without any consideration of its effect on his contemporaries. It extends to 2400 quarto pages and is devoted to what he calls "The Science of Universals."[37]

32 *Of the origin and progress of language,* V, 262-3.

33 *Ibid.,* V, 264-9.

34 *Ibid.,* V, 268n.

35 *Ibid.,* V, 253-4.

36 *Ibid.,* V, 253, 467.

37 It is not within the province of this article to ascend to Monboddo's ontological sphere. But the gist of his work may be stated. The author is opposed to a mechanical explanation of the Universe. The great, the universal mover, is *Mind,* the root of all things. He proposes to revive ancient Theism, which was entirely lost because modern philosophers "physiologise" without Mind: "Although they allow that Mind was necessary at first to produce this Universe and set it agoing, they think it may now go on without Mind by the operation of matter and mechanism merely, whereas the ancients thought that the operations of Nature could no more go on without the constant and unremitting agency of Mind than a Universe could have been at first produced without Mind." This power of elevation above sense and detachment from it proved to Monboddo that man has free will. (Knight, *op. cit.,* pp. 22, 35; Henry H. Brown, "Lord Monboddo: A judicial metaphysician," *Juridical Review* [Edinburgh and London, 1905], *17,* 267-77.)

There is a great deal of repetition in these volumes. Monboddo was truly a "circumambulating metaphysician." But his reiterations were due to the intense earnestness of his convictions and to his belief that his was "the voice of one crying in the wilderness, 'Prepare ye the way.'" Setting up the hypothesis of mind or intelligence everlastingly diffused through the Cosmos, he clung to the three postulates: God, Freedom, and Immortality, elaborated in a different way, quite as firmly as the philosopher of Königsberg did.[38]

Monboddo's work, *Of the Origin and Progress of Language*, was first published anonymously in six volumes, 1773-92. It was translated in part into German by E. A. Schmid (Riga, 1784-86) and greatly praised by Herder in a preliminary dissertation to Schmid's version. It was also welcomed in France.[39] What immediately set Monboddo upon origins was the study of some barbarous and imperfect languages spoken in America from grammars and dictionaries which he had taken out of the King's Library when he was last at Paris.[40] He held that language was a human invention, that man originally was an animal without speech or reason or affection in a state not much superior to that of the brute and that all the higher attainments of the human race in reason, affection, civilization, and speech were the mere results of long experience, continuous struggle and artifice. What therefore chiefly distinguished human nature from that of the brute was not the actual possession of higher faculties, but the greater capacity of acquiring them.[41] The scientific experimentalism that is the keynote to this work is in contrast to the idealism of *Antient Metaphysics*. As he states at the beginning of his book: "Unless we know what man is by nature we cannot be said to know the natural history of man. . . . His nature, as far as concerns the structure and organization of his body has been sufficiently studied. But is not the natural state of his better part, the mind, much more deserving our inquiry?"[42] He had no intention of giving offence

38 Knight, *op. cit.*, pp. 36, 39.

39 *Ibid.*, p. 22.

40 *Ibid.*, p. 49. John Hunter, afterwards Professor of Humanity in the University of St. Andrews, acted as Monboddo's secretary and assisted him in the preparation of the work, p. 22.

41 "Education and experience must have developed our faculties no less for the creation of language than for other purposes. . . . Language must have begun with a confused utterance of the most varying and uncertain articulations. . . . The process of utterance must have been long and tedious before anything worthy to be called a language could come into existence." Herbert A. Strong, *Introduction to the study of the history of language* (London, 1891), pp. 157, 167-9.

42 *Of the origin and progress of language*, I, pref. iv.

to any sensible Christian by what he said concerning the natural state of man and the invention of language. "Had my philosophy led to any opinions tending to overturn the established religion of the country, I should have thought it my duty as a good citizen never to have published them but to have kept them as secret as I would have kept a poison I had discovered."[43]

The style was to be plain and didactic such as is suitable to a subject that is to be treated as a matter of science.

> It will not therefore have that mixture of the rhetorical and poetical that is so common in the fashionable writings of this age. . . . As I do not write for the vulgar, I will not adapt my style any more than my matter to their taste. . . .
>
> Those who have studied the history of man not of particular nations only . . . know very well that all nations even the most polished and civilized of which we read in history were originally barbarians and that as all the vegetables such as the vine and the olive which are now cultivated and improved by art and in like manner the brute animals that are tamed were at first wild so likewise man himself was originally a wild savage animal till he was tamed and as I may say humanized by civility and arts. Whoever, therefore, would trace human nature up to its source must study very diligently the manners of barbarous nations instead of forming the theories of man from what he observes among civilized nations. . . . Whether we can, in that way, by any discoveries hitherto made, trace man up to what I suppose his original state to have been may perhaps be doubted, but it is certain we can come very near it. For we are sure that there have been in the world and are still herds of men (for they do not deserve the name of nations) living in a state almost entirely brutish. . . . From savage men we are naturally led to consider the condition of the brutes, betwixt whom and the savages there is such a resemblance that there are many who will hardly admit of any difference.[44]

Man has by nature greater capabilities than the brute and a greater faculty of forming and improving habits.

> What reasons or what facts can induce us to believe that . . . when we come to a certain time of life we should instantly burst our prison of flesh and blood and be transformed in a moment into rational creatures without any use or instruction or previous habit acquired. . . . For Nature is always frugal in her gifts nor is she in any other instance so profuse as to bestow upon one and the same animal both the capacity of acquiring any faculty and the actual possession of that faculty. . . .
>
> We must consider the state of savages who are so much nearer the natural state of man than we that it is from them only that we can form any idea of the original nature of man. And I will venture to affirm that any man who attempts to form a system of human nature from what he observes among civilised nations only will produce a system not of nature but of art and instead of the natural man, the workmanship of God, will exhibit an artificial creature of human institutions.[45]

[43] *Ibid.*, I, pref. vii.
[44] *Ibid.*, I, 4, 144-5, 146.
[45] *Ibid.*, I, 150, 152.

To lay an adequate basis for the doctrine as to the origin of language Monboddo begins by a discussion of the origin of Ideas and brings forth the metaphysical solution learned from Plato and Aristotle. None of our ideas, whether formed from sense perception or from the operations of our own minds, are learned from Nature. They are due to acquired habit, not to instinct.

> No species of thing is formed at once but by steps and progression from one stage to another. . . . There is the same progress in the formation of man. . . . If we cannot be Gods, let us continue men and not be degraded to brutes by being stripped of that prerogative which chiefly distinguishes us from them, I mean Intellect. . . .
>
> This is the scale of being, rising by proper gradations from mere matter and sense to intellect through the medium of memory, imagination, and opinion.[46]

If ideas, which constitute the form of language, are not natural to man, sounds (articulation), which are the matter of it, cannot be natural but acquired. Monboddo tries to show that not only individuals, solitary savages, but whole nations have been found without the use of speech, and although they have organs of pronunciation as perfect as we, they have never been taught to speak. Articulation is not only an art, but an art of most difficult acquisition learned by constant and assiduous practice. "If we are to suppose that Nature in her bounty to our species has gone beyond necessity we cannot stop but must rather suppose that she has bestowed upon us all the arts which minister to our convenience, utility, or even pleasure, in short all the arts of life."[47]

[46] *Ibid.*, I, 175-6, 184, 182.

[47] *Ibid.*, I, 206. Undoubtedly Monboddo firmly believed that acquired characters are inherited. As Professor Conway Zirkle states in his acute and informative essay ("The early history of the idea of the inheritance of acquired characters and of pangenesis," *Trans. Amer. Phil. Soc.*, 1946, *n.s.* 35, 91-151): "Records of the inheritance of acquired characters are really numerous in the eighteenth century, probably more numerous than in the two preceding centuries combined. During this period comparative anthropology was coming into being, and anthropologists were concerned with the origin of human racial differences. The universality of Noah's flood was still generally accepted, which implied, of course, that all races were closely kin. The missionary had to look upon the cannibal as his own 130th cousin. How, then, were the observed special racial characters to be explained? The most obvious explanation was that the slight physical modifications caused by the climate were heritable and cumulative from generation to generation. Black skin was thus the end result of many generations of sunburn. Another source of the records is in the writings of eighteenth century physicians who were interested in hereditary disease. At this time most diseases, supposedly, were conditioned by an hereditary taint. No distinction whatever was made between congenital family peculiarities and those due to accidents, with the natural result that the inheritance of acquired characters was tacitly accepted in numerous medical works. Lamarck, born in 1744, could hardly have escaped a hypothesis which was so universally accepted. In fact, more than twenty of his contemporaries described the inheritance of acquired characters before he used the hypothesis to explain evolution." (p. 105)

Professor Zirkle actually lists twenty-eight authors in the eighteenth century (including Monboddo) who accepted the inheritance of acquired characters, Condorcet and William Godwin among them. It seems that up to the nineteenth century only Lucre-

Language is not natural to man. One of two things must necessarily follow: either that language is the fruit of human art and industry, or that it must have been revealed from heaven. Some learned men believed it exceeded the power of man to invent so wonderful an art and that therefore it was the gift of God.

This is an opinion that I am far from rejecting as absurd or improbable, nor would I have it believed that I pay no regard to the account given in our Sacred Books of the origin of our species. But it does not belong to me as a philosopher or grammarian to inquire whether such an account was to be considered allegorically according to the opinion of some divines or literally and as an historical fact.[48]

If the gift of speech, adds Monboddo, had once been bestowed by God on man, yet it might afterwards have been lost by calamity, floods, plagues, and famine. The question of divine origin is tactfully skirted. "But with all this labor we have only made of man a *rational* animal; it remains still to make him a *speaking* animal." For this purpose Monboddo held society to be absolutely necessary for the invention of language, and though it was impossible that language could have been invented without society, yet society may have subsisted perhaps for ages before language was invented. "For though a solitary savage might, in the process of time acquire the habit of forming ideas, it is impossible to suppose that he would invent a method of communicating them for which he had no occasion."[49]

All animals, Monboddo (as Aristotle) divides into solitary and gregarious, political and nonpolitical. Man was to be ranked in neither of these divisions but in the middle of each of them. He cites examples of men living without the arts of civilization and in tracing the causes which led to the rise of civil society endeavors to show that it was "not from Nature." Time was when animals disputed with man the empire of the earth, and it was experience and not instinct that taught men the use of arms and of acting together in concert against common enemies, these enemies being those of their own race and foreign invaders as well as the lower

tius, Vincent of Beauvais, Charles Bonnet, Lord Kames, Charles White, and the philosopher Immanual Kant opposed the belief. (pp. 105-16)

See Professor Zirkle's stringent remarks about the revival of Lamarckian doctrine in Communist Russia. "The inheritance of acquired characters is now *de rigueur* in Communist countries." (*Science*, 1954, *120*, 189-90, and *Death of a science in Russia*, Philadelphia, University of Pennsylvania Press, 1949, pp. 14-20.)

Monboddo saw a definite stimulus to improvement induced by the struggle for existence, and we can certainly list him with those who anticipated Malthus. (*Of the origin and progress of language*, 1st ed., I, 254-61; Conway Zirkle, "Natural selection before the 'Origin of species,'" *Proc. Amer. Phil. Soc.*, 1941, *84*, 95.)

[48] *Ibid.*, I, 207, 209-10.

[49] *Ibid.*, I, 214-15, 217.

animals. He then proceeds to answer the objections (i) that instinct was sufficient to provide all the necessaries of life and all its safeguards and (ii) that the law of Nature presupposes man to have been rational and political from the first.

Monboddo next treats of the modes of communication between men prior to the invention of language, namely, by inarticulate cries, looks and gestures, imitative or mimic sounds, and painting or delineation, the first and third only having any relation to language. He then discusses the theory of his friend Dr. Blacklock that before ideas were expressed by articulate sounds, they found expression through a musical language. He does not agree with this and says that even if it were so, such a language would be altogether inadequate even for savage life. Monboddo concludes that "language arose from natural inarticulate cries" and the first were probably those by which animals call on one another and exhort or command one another to do certain things. Then in the process of time other cries were articulated. This increase of words would make more articulation necessary. And thus language would grow by degrees and as it grew it would be more and more broken and articulated by consonants. The first languages were spoken mostly from the throat and the consonants were guttural, the organs of the mouth and lips but little employed. "The breath which comes from the lungs and passes through the windpipe is the subject matter of speaking. . . . That the first articulate cries expressed the names of things I can no more believe than that the neighing of a horse or the lowing of a cow is a name for anything." The names first invented were those most conversant with trees, animals, hunted or tamed.[50]

There was not one primitive language but many; nevertheless, not every nation invented its own language but some derived their speech from others. Languages have been propagated at very different rates of speed and all are liable to change.

> I imagine the invention of language resembles the invention of machines. At first a machine is contrived very clumsy and answering very ill the purpose for which it is intended, then art falls to work with it and makes it better, but so complex and with so many springs and movements that it is not easily used. But art still proceeding and observing the defects and inconveniences at last devises a way of simplifying the machine and making it perform its operations with as few powers and movements as possible. And this is what I call the perfection of art.[51]

[50] *Ibid.*, I, 485, 576, 426-574, *passim*.

[51] *Ibid.*, I, 568-9.

At the close of volume one, Monboddo discusses the influence of the East on the languages of Europe and concludes that all the languages spoken in Europe, Asia, and some parts of Africa are dialects of one parent language, Egyptian. Elsewhere in a letter to Sir William Jones he writes:

> Not only all arts and sciences have come from the East but even the race of man . . . his native country is the East from whence he has spread over all the rest of the earth. And this migration is to be traced chiefly by language and I believe that the same language you mention—Sanscrit—is the original of many other languages.

He goes on to mention its curious affinity with Greek and adds that perhaps the Greeks learned it from Egypt.[52] For some time Monboddo studied under Charles Wilkins, the author of a grammar of Sanscrit.

The first volume of the *Origin and Progress of Language* though stimulating—Monboddo is always independent and courageous (even when mistaken)—is a jumble of information, badly planned and disjointed, loose, prolix, and pedantic. At times we get the impression we are witnessing not the origin and progress of language but a complex and rambling philosophy of mind. After volume one Monboddo settles down to a readable and often cogent explanation of the art of language. His own style is always clear, plain, forcible, direct.

He discusses the formal part of language (grammar and syntax) and the sound of language (articulation, accent, quantity, rhythm), the different excellences of different languages (Greek, Sanscrit, Latin, English, French, Italian), the forms of style (the austere, the florid, the sublime, the witty, and the humorous, and style in conversation, letter writing, dialogue, history, and biography.) Again we hear Monboddo's jeremiad: learning was deep in its decline all over Europe, for Greek was not cultivated. The only antidote against the deadly poison of luxury was the study of Greek philosophy and Greek art. The chief advantage of education was to teach us how to employ our leisure.[53] Gibbon's style, he calls

> the most labored style of history in our time. . . . I am like a painter or sculptor who has formed his taste upon the ancient monuments of art to be seen at Rome and Florence and who therefore can hardly bear to look at sign post painting or anything of the kind that is not formed upon the

52 Knight, *op. cit.*, pp. 268, 270. Lady Jones sent as a gift from Sir William Jones a small image of a Buddha which had been found on digging up one of the hills at Islamabad. *Historical Manuscripts Commission* (London, 1874), Appendix to 4th report, part I, p. 520.

53 *Of the origin and progress of language*, III, 436-66.

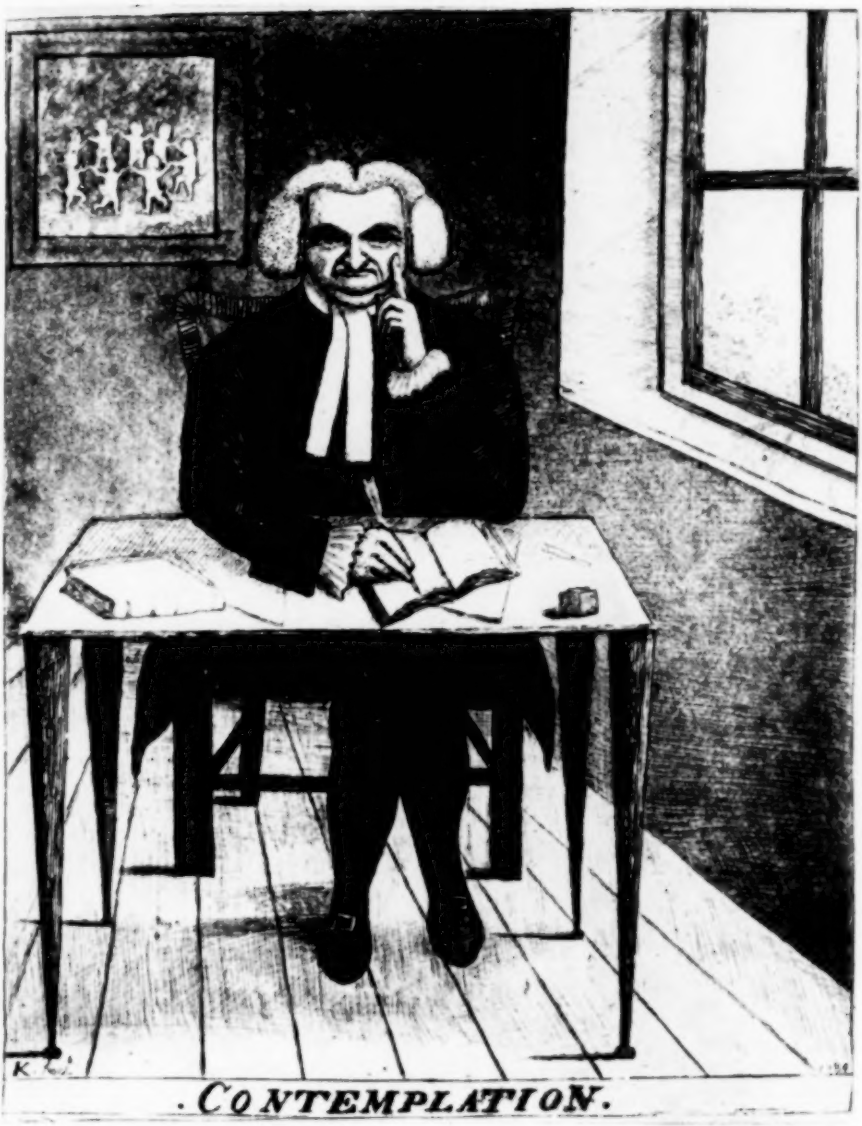

Fig. 1. Lord Monboddo. Engraved by John Kay in 1784. (From his *A Series of Original Portraits and Caricature Etchings*. Edinburgh, 1838, vol. I, p. 21.)

ancient model, so I having formed my taste of writing upon such authors as Herodotus, Xenophon, Demosthenes, and Dionysius the Halicarnassian or Julius Caesar in Latin not only by reading them very diligently, but by translating and imitating them, cannot read with any pleasure what is composed in a style so different as that of Mr. Gibbon but rather choose to go to the original authors, if I desire to be informed of the crimes and vices, the follies and extravagances of those degenerate days of which Mr. Gibbon writes. . . .

Nothing offends men of good taste more than studied and affected graces of behavior and it is the same with respect to the arts which have been all at different times spoiled more or less by a bad taste of ornament, and no art more than the writing art.[54]

Yet despite Gibbon's "faults" of style, Monboddo admits he had a genius, taste, and learning superior to the age in which he lived. "He may have thought it proper to write as Cicero says an orator should speak—altogether to the taste of his audience.[55]

The best style is unvarnished Caesar's *Commentaries*—"to draw your attention to the things more than to words. . . . In rhetoric as well as in other arts the greatest art is to conceal art."[56]

Monboddo's last volume deals with "the matter and subject of rhetoric," of composition, writing, and oratory. He admits that he studied Demosthenes more than any other Greek or Latin author, that Demosthenes was his companion in his journeys for many years, and that he modeled his style on his. "But I flatter myself that it is not unlike the style of Milton, the best English writer, in my opinion, both in verse and prose, and who, I have no doubt, formed his style particularly in his speeches by the imitation of Demosthenes.[57]

Monboddo mentions a projected seventh volume on poetry which "I think I may venture to say will be the greatest work of the kind . . . that has been published in later times."[58]

These subjects have been discussed to much greater purpose since Monboddo's time by numerous scholars and his volumes are now nearly forgotten. But the root principle of his teaching was the ascent and progress to be seen in Nature from the inorganic through the organic up to man, a progress which has gone on historically in the human species—that the human race for ages was in a worse state than animals with no reason or affection or sense of duty or power of speech, being endowed merely with sensation and memory.

54 *Ibid.*, V, 276, 282-4.
55 *Ibid.*, V, 284.
56 *Ibid.*, V, 83; VI, 326.
57 *Ibid.*, VI, 449.
58 *Ibid.*, VI, 472-3.

The sting of Monboddo's book was in its tail. He was laughed at by the wits, mourned over by the pious, and sneered at by his brother judges. Lord Kames asked Monboddo to go before him in a room, saying, "Just to see your tail, my Lord." Monboddo had relied on Rousseau's *Discourse on the Origin of Inequality.* Lord Kames wondered that Monboddo had not more pride than to swallow a Frenchman's spittle.[59] For the second edition he relied via Buffon on Edward Tyson's *Orang-Outang Sive Homo Sylvestris,* especially on Tyson's report of the vocal organs of the orang-outang.

In propounding the novel view that language is not natural to man Monboddo contends that man resembles in some respects the manlike ape, the orang-outang. Of all those savages caught in different parts of Europe not one had the use of speech, though all had organs of pronunciation such as we have.[60]

[59] Clodd, *op. cit.,* p. 852; Ramsay, I, 357. As Professor Lovejoy points out, much of Monboddo's doctrine is an elaboration of a group of ideas to be found in Rousseau's *Discourse on the origin of inequality* published twenty years before. But Professor Lovejoy does not say with certainty whether the similarity was due to the spontaneous occurrence of the same thoughts to two contemporary minds or to the direct influence of one writer upon the other. Both were familiar with the gradual evolution of society in Lucretius, Cicero, and Horace. Both were also familiar with the facts disclosed by the progress of comparative anatomy in their century. On the other hand, Monboddo had read Rousseau and was one of the Frenchman's enthusiastic admirers. "All that can confidently be asserted on the matter is that Rousseau and Monboddo were brothers in arms." Monboddo's grand design (his projected History of Man) had been to do on a large scale what Rousseau had attempted in a brief, sketchy way. (Arthur O. Lovejoy, "Monboddo and Rousseau," *Modern Philology,* 1933, *30,* 292-5.) Professor Lovejoy lists six similar theses: 1. character of the state of nature; 2. undesirability of the state of nature; 3. man and the orang-outang; 4. the specific differentia of "homo sapiens"; 5. the ascent of man; 6. conception of an evolutionary universal history ((pp. 275-92, *passim.)*

[60] In 1773 Monboddo was only indirectly acquainted with Edward Tyson's treatise *Orang-outang sive homo sylvestris* (1699.) For information concerning the anatomy of the orang-outang he had relied upon other sources. In a letter to Sir John Pringle, 16 June 1773, he says: "If ever my book comes to a second edition which you seem to think it deserves I shall certainly correct that too strong expression about the exact conformity of the anatomy of the orang-outang with that of a man. I had my information upon that point from M. Jussieu at Paris who either did not know or did not think it worth his while to inform me of those differences which Dr. Tisson has observed betwixt the anatomy of the orang-outang and ours." (Knight, *op. cit.,* p. 85.) For the second edition Monboddo became fully acquainted with Tyson's *Orang-Outang* and drew upon it, especially from the lengthy abstracts of the treatise which he found in Buffon. But since he was interested in the origin and progress of language he paid particular attention to Tyson's account of the vocal organs of the orang-outang. Monboddo considered that these organs were so like man's that the orang-outang ought like him to be capable of speech. A discussion with Sir John Pringle (Physician General, founder of Military Medicine, and President of the Royal Society) led the latter to appeal to his old friend Peter Camper, the Dutch anatomist, to investigate the organs of speech in the orang-outang. In due course Camper produced such an account in "A letter to Sir John Pringle." Camper tries to prove "the absolute impossibility there is for the orang and other monkies to speak . . . that orangs and apes are not made to modulate the voice like men." Peter Camper, "Account of the organs of speech of the orang-outang," *Phil. Trans., London,* 1779, *69,* 140, 155, 139-59; M. F. Ashley Montagu, *Edward Tyson, 1650-1708* (Phila., 1943), pp. 409-10. See also article by Ashley Montagu, "Tyson's *Orang-outang sive homo sylvestris* and Swift's *Gulliver's travels in PMLA,* 1944, *59,* 84-5.

Further, not only solitary savages, but a whole nation, if I may call them so, have been found without the use of speech. This is the case of the Orang-Outangs that are found in the kingdom of Angola in Africa and in several parts of Asia. They are exactly of the human form, walking erect, not upon all four like the savages that have been found in Europe. They use sticks for weapons, they live in society, they make huts of branches of trees, and they carry off Negro girls of whom they make slaves and use them both for work and pleasure. These facts are related of them by Mons. Buffon in his Natural History. And I was further told by a gentleman who had been in Angola that there were some of them seven feet high, and that the Negroes were extremely afraid of them, for when they did any mischief to the Orang-Outangs, they were sure to be heartily cudgelled when they were caught.

Monboddo then quotes Keoping, a Swede who in 1647 went to the East Indies. In the Gulf of Bengal he saw men with tails who came in canoes alongside the ships with the intent to trade with the Dutch.[61] And Monboddo relates what Struys says: that he saw in the island of Formosa a man with a tail more than a foot long all covered with red hair and very like the tail of an ox.[62] Even in Etruscan vases men are represented with tails. Monboddo adds:

Those who have not studied the variety of nature in animals and particularly in man, the most various of all animals, will think this story of men with tails very ridiculous and will laugh at the credulity of the author for seeming to believe such stories. But the philosopher who is more disposed to inquire than to laugh and deride will not reject it at once as a thing incredible that there should be such a variety in our species as well as in the simian tribe which is so near of kin to us. That there have been individuals in Europe with tails is, I think, a fact incontestible. Mr. Maillet, the author of the description in Egypt, a man of great curiosity and observation, affirms in a work that he calls *Telliamed* that he himself saw several men of that kind whom he names and of whom he gives a particular account. And I could produce legal evidence by witnesses yet living of a man in Inverness, one Barber, a teacher of mathematics who had a tail about half a foot long which he carefully concealed during his life, but was discovered after his death which happened about twenty years ago. Nor will any man who knows the structure of the human body and the nature of a tail which is nothing else but an elongation of the rump bone be surprised that this should sometimes happen. . . .

As it has been found in so many different parts of the world I think it is at least probable that it is a specific variation and that there is a race or nation of men with tails.[63]

So convinced was Monboddo that whenever a child happened to be born in his house, he contrived to see it in its first state having the notion that the tail was removed immediately after the child's birth.[64] He assured James Beattie that men with tails existed not

[61] *Of the origin and progress of language*, I, 188-9, 258-9.
[62] *Ibid.*, I, 265-6n.
[63] *Ibid.*, I, 262-3n, 264-6n.
[64] Gray, *Some old Scots judges*, pp. 72-3.

only in the islands of Nicobar but even in Scotland and that men were naturally cannibals. Beattie scoffed at the idea but admitted that Monboddo was honest in his beliefs, worthy, friendly, well bred.[65]

[65] William Forbes, *Life and writings of James Beattie* (New York, 1806), p. 320. The epithet *caudatus* (tailed) was applied to Englishmen as an opprobrious nickname all through the Middle Ages. The clue to the meaning was to be found in a tradition that the fishermen of the English coast received St. Augustine and his fellow missionaries with insults, in particular fastening fish tails to their garments. For this a curse was laid upon them that their descendants should be born with tails. On the continent this legend grew into a popular belief, especially among the French who avenged their many defeats by their hereditary foes by calling them coués (tailed). With the notion of an actual physical deformity was mingled the idea of want of courage, the French *couard* and the Italian *codardo,* from which the word *coward* is derived, being connected with *cauda* or *coda,* the tail. In heraldry a lion *couard* has his tail between his legs. The belief that Englishmen had tails was accepted in a literal sense. A typical example occurs in a medieval poem communicated by Professor Wattenbach to the *Anzeiger für Kunde der Deutschen Vorzeit* (1874). There the Englishman is described in the following unflattering verse:

> Anglicus a terge caudam gerit: est pecus ergo;
> Cum tibi dicit "Ave," sicut ab hoste cave.
> (A brute beast is the Englishman,
> For he doth bear a tail;
> Beware, and treat him as a foe,
> E'en when he bids thee "Hail.")

The legend is current in chronicles and popular literature from the twelfth to the seventeenth century. Only a few instances need be cited. When Richard Coeur de Lion was betrayed and brought as a prisoner before the King of Allemayne he represented himself and his companions as pilgrims, but the King replied with a jeering allusion to their tails. The monarch "began to rage," threw a knife at one of Richard's companions, and followed this up by peremptorily ordering them out of his presence:

> "Out, 'taylards', of my paleys!
> Now go and say your 'tayled' King
> That I owe him no thing."

(from a metrical romance, confessedly a translation of the French, recording the life and exploits of Richard Coeur de Lion.) A poem, dated about 1430, celebrating Joan of Arc, opens with the words, "Arrière, Englois coués, arrière!" ("Back, English 'tailards,' back!") When in 1436 the English evacuated Paris, which they had held for sixteen years, the inhabitants shouted after them in derision, "Tails, tails!"

It was natural that the Scots should adopt the taunt which they had learnt from their continental allies. The festivities accompanying the christening of the infant son of Mary, Queen of Scots, on 17 Dec. 1566, included a masque written by George Buchanan in which figured satyrs wore tails. As the mummers passed the English guests they put their hands to their tails and wagged them, nearly creating a brawl, one Englishman being tempted to "put a dagger to the heart" of the chief French performer.

The belief was by no means confined to France and Scotland. Fazio degli Uberti, an Italian poet of the fourteenth century, whom D. G. Rossetti translates in his *The early Italian poets,* refers to England as an island where people are born with short tails, such as are seen in stags and other beasts. Perhaps Fazio is Boccaccio's authority for the statement that "certain Englishmen were born with tails."

The myth that Englishmen had tails persisted to the seventeenth century, especially in Cornwall. Mr. Baring-Gould in his *Curious myths of the Middle Ages* says that as a child he firmly believed on the authority of his nurse that all Cornishmen were born with tails. But from the middle of the sixteenth century the legend begins to die out. Writers mention it only to scoff at its absurdity. In the seventeenth century, however, a trace of it is found in the attribution of tails to the men of Kent. A few writers still cling to the myth. Andrew Marvell in his *Loyal Scot* says, "For Becket's sake Kent always shall have tails," citing the danger incurred by provoking the anger of a prelate; Drayton's *Polyolbion* has ". . . this Blazon first, Long Tails and Liberty," and Samuel Butler in his *Hudibras* says: "Tails by nature sure were meant,/ As well as beards, for ornament." According to an annotator, Butler was alluding to an account of Irishmen slain in the County of Tipperary. There were found among the slain of the Irish, "when

It is curious that with an intellect so keen and arrowy and a power of sifting evidence Monboddo should have been so strangely imposed upon by stories of travelers. These travelers he reports at length: Maillet and Diemenbroech, Bosman and Gauthier Schoutten, Guat, Bontius and Carreri, Dampier, Froger, Gassendi, Sir Walter Raleigh, Marco Polo, Purchas, and others. Despite the skepticism of M. Buffon, the amazing stories attested by ancient and modern authors fully convince him. He refuses to reject stories of men with eyes in their breasts or men with one leg.[66] That men with the paws of a dog and monsters with the head of a man and the body of a lion had existed, he sees no reason to doubt because Aristotle had well said: "Everything exists or did at one time exist which it is possible to exist."[67] "We ought, therefore," Monboddo adds, "to listen to credible evidence concerning the existence of any animal however strange unless we can take upon us to pronounce decisively."[68]

The orang-outang Monboddo reiterates, was man's precursor. "This opinion, I know, will appear very singular to many and will give offence to some. . . . But as I do not write to flatter the vanity or prejudices of any man I will fairly examine the question."[69] He now marshals his curious evidence. Bontius in India saw orang-outangs of both sexes walking erect and particularly observed that the female showed signs of modesty by hiding herself from men whom she did not know. And Bontius adds that she wept and groaned and performed other human actions so that nothing human seemed to be wanting in her except speech. Purchas reported upon the credit of one Battel in Africa the existence of an animal which he calls the *Pongo,* resembling man in every respect only much bigger like a giant. These animals walked upright and were armed with sticks with which they attacked even elephants and drove them out of their woods. They lived upon fruit only and ate no flesh, slept in trees and made huts to defend themselves

they were stript, divers with tails near a quarter of a yard long. The relator being very diffident of the truth of this story, after enquiry, was ensured of the certainty thereof by forty souldiers that testified upon their oaths that they were eyewitnesses, being present at the action."

We may conclude that all nations are ready to believe the most absurd thing about foreigners—as, years back, that Frenchmen fed on nothing but frogs, and Germans, sauerkraut. (See Louis A. Barbé, *In byways of Scottish history,* New York, 1913, pp. 291-360; "The legend of the English tail," *Brit. med. J.,* 1908, 2, 1204-05; 1913, 1, 1008-09; Sabine Baring-Gould, *Curious myths of the Middle Ages,* London, 1869, pp. 145-60; Alexandre Brou, *St. Augustin de Canterbury et ses compagnons,* Paris, 1897, pp. 143-4.)

66 *Of the origin and progress of language,* I, 267-9.

67 *Antient metaphysics,* IV, 45, 48, quoted in Graham, *Scottish men of letters,* p. 192.

68 *Of the origin and progress of language,* I, 269n.

69 *Ibid.,* I, 270.

against the sun and rain, and when one died, the rest covered his body with a heap of branches and foliage. A Negro boy whom they had carried off came back after staying a year with them without suffering any harm. Two other travelers, Bosman and Gauthier Schoutten, add that the orang-outangs were fond of women whom they always attacked when they met them in the woods. And Dampier and Froger and other travelers affirm they frequently carried away young girls. Finally, Gassendi on the island of Java says he saw apes resembling men with long white beards who walked with gravity and composure. They walked erect when clothed and played very well upon the pipe, harp, and other instruments. The females among them had their monthly courses and the males had a great desire for women. One Mr. Guat saw in Java and brought along with him a female ape who showed marks of modesty by covering with her hand what the ancients thought it was proper the Goddess of Love should conceal. Besides she performed several other human actions such as making her bed, covering herself with bedclothes, binding her head with a handkerchief when she had a headache.[70] If we could believe the Swedish traveler Keoping, remarks Monboddo, the baboons and our females copulated together. "For Keoping says he saw an animal produced of that copulation which as soon as it was born, fell to climbing upon the chairs and tables and at last got up to the top of the house from which it fell and broke its neck."[71]

The substance of all these different relations added up to what in Monboddo's estimation?

> That the Orang-Outang is an animal of the human form inside as well as outside. That he has the human intelligence, that he has a disposition of mind, mild, docile, and humane. That he has the sentiments and affections peculiar to our species, such as the sense of modesty, of honor, and of justice, and likewise an attachment of love and friendship to one individual so

[70] *Ibid.*, I, 272-6, 291-2. In Tyson's amusing reproduction of Bontius's female figure, the external genitalia have been covered with a twig of leaves because the creature was *described* as "modest," not, be it noted, because Tyson considered the general representation of the genitalia either as immodest or improper. (Ashley Montagu, *Edward Tyson*, p. 260.)

[71] Knight, *op. cit.*, p. 85. Philip Thicknesse, the author of travel books, writing to Monboddo, confirmed the "justness" of his remarks. He mentions the *Child of the Sun*, a remarkable animal shown in London. When a stranger entered the room, he instantly fixed his eyes upon him with a marked degree of attention and having read the stranger's eyes he cast his own constantly up to the ceiling to prevent the stranger's reading his. He understood everything said to him by his keeper and "had more sense than half the brutes erect we meet in the streets." He possessed himself of his lady's lap dog and no art or force could make him deliver it up. It lived sometime in the cage with him and when by his caresses and holding the dog too close it died, he would never eat after. (*Historical Manuscripts Commission*, op. cit., p. 519.)

strong in some instances that the one friend will not survive the other. That they live in society and have some arts of life, for they build huts and use an artificial weapon for attack and defence, *viz.*, a stick, which no animal, merely brute, is known to do. They show also counsel and design by carrying off creatures of our species for certain purposes and keeping them for years together without doing them any harm which no brute creature was ever known to do. They appear likewise to have some kind of civility among them and to practise certain rites such as that of burying the dead. It is from these facts that we are to judge whether or not the Orang-Outang belongs to our species.

If we do not believe facts proved by such a concurrence of testimony not only of common travelers but of learned physicians, I repeat it again, I do not know how any fact of natural history is to be proved.[72]

Monboddo's tales are fanciful but his conclusion is hardheaded and just.

As to the vulgar I can never expect that they should acknowledge any relation to those inhabitants of the woods of Angola, but that they should continue thro' a false pride to think highly derogatory from human nature what the philosopher on the contrary will think the greatest praise of man—that from the savage state in which the Orang-Outang lives he should by his own sagacity and industry have arrived at the state in which we now see him. . . .

72 *Of the origin and progress of language*, I, 289-90, 292. But as Ashley Montagu states: "In spite of the ingenuity of Monboddo's arguments, all the attempts that have since been made to teach anthropoids to speak, the anthropoid continues obstinate in its refusal to do so." (Ashley Montagu, *Edward Tyson*, p. 290.) See also Robert M. Yerkes, *Almost human*, New York and London, 1925, pp. 165-80.

Peacock in *Melincourt* takes for his hero Sir Oran Haut-ton ("a specimen of the natural and original man, a genuine facsimile of the philosophical Adam") captured while yet young in the woods of Angola and subsequently educated in England where a baronetcy is purchased for him by his friend and protector Mr. Forester. He is subsequently elected M. P. from the borough of Onevote. Monboddo's orang-outang appears in green coat and nankins, gentle and sweet in temper, dignified in demeanor, plays delightfully on the flute and French horn ("See the Conquering Hero Comes"), and is proficient in drawing. He runs true to form: He uses a stick to rout Miss Melincourt's kidnapers, he drinks tea with copious infusions of cream, and he exhibits prodigious feats of strength: he pulls up a pine as one would a mushroom and he carries and empties a tub containing 108 gallons of water to extinguish a blaze in the Cimmerian Lodge of Moley Mystic (Coleridge).

> They wrong thee that do call thee rude
> Though thou be'st outward rough and tawny hued,
> Thy manners are as gentle and as fair
> As his who boasts himself born only heir
> To all humanity. Fletcher's *Faithful Shepherdess*

(Peacock, *Melincourt, passim*). Byron was under the mistaken notion that Sir Oran Haut-ton in some way referred to his bear. (Carl Van Doren, *The life of Thomas Love Peacock*, London, 1911, p. 94.)

Wilhelm Hauff writes a Swiftian tale of an orang-outang with barbs at the English. An eccentric stranger comes to the town of Grünwiesel, Germany, and is annoyed at the attempts of the inhabitants to invade his privacy. In revenge he picks up from a traveling menagerie a giant orang-outang and introduces him to Grünwiesel Society as his nephew, the Young Englishman. He wins all hearts and everybody imitates him—until he is unmasked at a concert after which he is delivered to a learned collector. (Wilhelm Hauff, "The young foreigner," in *Two fables, trans.* by Christopher Morley, New York, 1925.)

> I think it is much more for the honor of the Creator as well as the creature to suppose that man was at first created with powers sufficient to discover all that was necessary for human life . . . than to suppose him originally a mere puppet, moved and directed in every thing by the same power that made him. . . .
>
> Such an automat human art can produce, but a real animal and especially an animal such as man with natural powers which make him capable of acquired improvements to which no bounds can be set is truly a work worthy of omnipotence.[73]

Darwin would have recognised a fellow worker in one who studied man as one of the animals and sought to throw light on problems of civilization by collecting data about savage tribes. But Darwin would have been amused at the evolutionary principle framed in such fantastic beliefs. Yet it was no mean advance to broach a theory which denied the special creation of man. Monboddo was far ahead of his time. Besides, a number of the accomplishments which he attributes to the higher anthropoids they actually possess. Köhler has proved that chimpanzees are able to solve original problems not merely by chance but with insight, that they are not only tool-using but tool-fabricating animals. And the careful studies of Yerkes reveal the "almost human" traits of apes.[74]

I believe it is wrong and unfair after reading the *Origin and Progress of Language* to remark that Monboddo's discovery "amounted to little more than a guess," and merely smart to state: "If Monboddo was an evolutionist, then he must have been in the same awkward predicament as M. Jourdain in one of Molière's plays who learned that he had been talking prose for more than forty years without knowing it.[75]

Monboddo's theory of man's development from the great apes is unsound since each is a lateral descendant of a common ancestor. The human embryo is proof that man had a tail. The remnants of a tail, the few small vertebrae beneath the skin, are among the seventy and more vestigial structures—"a large museum of relics which he carries about with him, enigmatical except in the light

[73] *Of the origin and progress of language*, I, 360-1, 379-80.

[74] Wolfgang Köhler, *The mentality of apes* (London, 1925) trans. by Ella Winter; Kurt Koffka, *The growth of the mind* (New York, 1928), 2nd ed. trans. by Robert M. Ogden, pp. 126-7, 179-205, 222-4; Robert M. Yerkes in one chapter deals with the emotional aspect of monkeys and great apes and shows their human resemblance: "Are we humans after all so nearly unique in our flaunted altruism? Are not the fundamentals and even the essential qualities of our unselfish feelings and actions existent in organisms which we too long have neglected to study and too often regarded with abhorrence and disgust?" (Yerkes, *op. cit.*, pp. 140-1).

[75] Gray, "A forerunner of Darwin," p. 113; Gray, *Some old Scots judges*, p. 70.

of the past."[76] It is to Monboddo's credit that in 1766 he could express in a letter to James Harris the conviction that "there is a progression of our species from a state little better than mere

[76] J. A. Thomson, *The bible of nature* (New York, 1908), p. 190. Ross G. Harrison mentions 146 cases reported of tailed humans. M. Bartels in 1884 published an exhaustive study of the occurrence of tails among the human race and listed 116 cases. In 1892 Oskar Schaeffer collected additional cases, adding in all 25. I. S. Pyatnitski (1892) has given an elaborate account of the subject, and J. H. F. Kohlbrügge (1898) has made valuable comparisons. From the United States five cases, to Harrison's knowledge, have been reported. (Harrison, pp. 1-3.) Other publications on the subject have appeared from time to time, notably by Virchow (1884), Dickinson (1894), Berry (1894), W. T. Watson (1900), Brugsch (1907), Konstantiowitsch (1907), and Schwarz (1912), Fulton and Dusser de Barenne (1933), Steiniger (1938). (Kunitomo, p. 166.) Harrison mentions that the majority of the embryonic tails contained no prolongation of the vertebral column but were classed as what Virchow calls soft tails *(weiche Schwänze)*. (Harrison, p. 4). He describes the histological structure of a large, well-developed tail which was removed from a child six months old—"Two weeks after the birth of the child the tail was 4.4 cm long; at the age of two months it had grown to 5 cm; and at six months, when it was removed, it had attained the length of 7.0 cm. showing altogether a fairly rapid rate of growth. The most remarkable characteristic of the tail was its movability. . . . Beneath the skin the main bulk of the tail is made up of areolar tissue containing much fat. Blood vessels, nerves, and striated muscle fibres are embedded in this mass. There is no trace of anything like the medullary cord or of notochordal tissue." (Harrison, pp. 5, 7.) The material upon which Kanae Kunitomo based his study consisted of 44 specimens in the Carnegie collection of human embryos. They ranged from 4 to 125 mm. CR length. (For the material stated above see Ross G. Harrison, "On the occurrence of tails in man, with a description of the case reported by Dr. Watson," *Johns Hop. Hosp. Bull.*, 1901, *12*, 1-18; *Ibid.*, 1900, *11*, 114; Kanae Kunitomo, "The development and reduction of the tail and of the caudal end of the spinal cord," *Contr. Embryol. Carneg. Instn.*, 1918, *8*, no. 26, *Brooklyn med. J.*, 1894, *8*, 568-9; cases reported by Dr. Dickinson and Dr. Page, *Memphis Med. Month.*, 1894, *14*, 105; Horatio H. Newman, *op. cit.*, pp. 81-4.

P. J. Blaxland mentions that a tailed child was brought into the hospital at the age of eleven months. The mother had not sought advice as she thought nothing could be done until the child had dispensed with napkins. The tail measured just over three inches (7.5 cm). The tail was excised, and the wound soundly healed eight days later. *(British med. J.*, 1950, *2*, 870-1). R. J. McNeill Love in describing a case has the bright (almost Monboddoan) suggestion that the abnormality of a tail might well be left in the hope that the bearer could use it later to earn his living in a circus. *(Ibid.*, 1934, *1*, 666.)

An examination of the *Quarterly Cumulative Index to Current Medical Literature* (1916-1926) and of the *Quarterly Cumulative Index Medicus* (1927-54) reveals 12 additional cases of tailed humans. R. J. McNeill Love in his article refers to two additional cases reported. J. A. Pires de Lima mentions four cases *(Arquivo de trabalhos*, 1945) in addition to the one he reported in 1927. These four were unpublished cases described to Pires de Lima by other people; he did not actually see them. But I have added them in the total of *164* reported cases. I have checked all of the cases mentioned in the following: 1. Chatterton *(Indian med. Gaz.*, 1903, *38*, 300, referred to by Love); 2. Errard *(Bull. Soc. Anat.*, 1922, 6th ser., *19*, 25-6, referred to by Love); 3. Rostock *(Bruns Beitr. klin. Chir.*, 1926-27, *138*, 657-62); 4. Pires de Lima *(Bulletins et mémoires de la Societé d'Anthropologie de Paris*, 1927, *8*, 58-60); 5. Landsman *(Trans. Amer. proctol. Soc.*, 1928, *28*, 17-18); 6. Sydenham *(British med. J.*, 1929, *1*, 502); 7. Robeson and Dickey *(Virginia med. Monthly*, 1929, *56*, 608-13); 8. Pellegrini *(Scritti Biologici, Raccolti da Luigi Castaldi*, 1933-34, *8*, 235-40); 9. Reynolds *(British J. Radiol.*, 1932, *5*, 457); 10. Bulla *(Bratislavke Lekárske Listy*, 1934, *14*, 150-4); 11. Love *(British med. J.*, 1934, *1*, 666); 12. Hornitzki *(Z. Chir.*, 1940, *67*, 1051-6); 13. Pires de Lima *(Arquivo Fac. Med.*, 1945, *149*, 1-7); 14. Blaxland *(British med. J.*, 1950, *2*, 870-1); 15. Aubin *(Anthropologie*, 1929, *39*, 286).

I wish to thank Misses Mary E. Grinnell and Miriam Hawkins of the Reference Section, National Library of Medicine (Washington, D. C.) for investigating and sending me a photostat of Piro de Lima's article of 1945. Especially am I indebted to Professor Alfred Iacuzzi of the City College of New York for his generous help in translating the same article from Portugese, and to Professor Conway Zirkle of the University of Pennsylvania for many excellent suggestions during the writing of this work.

brutality to that most perfect state you describe in Ancient Greece."[77]

But if Monboddo was ahead of the time, Dr. Johnson remained barely abreast of it. Holy Writ, it was believed, contained all that could suffice man to know about his origin and history. On that and on much else the canon was closed. Archbishop Ussher, who flourished in the seventeenth century, had computed—and his computation remained unchallenged down to the latter half of the nineteenth century—that the world was created in 4004 B.C.[78] Dr. Lightfoot of Cambridge went him one better in computation by stating that man was created by Trinity, 23 October 4004 B.C. at 9 a.m. But he must yield the palm to one Fisher who in his *The Marrow of Modern Divinity* proved (to his own satisfaction) that Adam after he had slain a paschal lamb offered it in sacrifice as a type of Christ, and was saved because he believed in Christ at exactly three o'clock in the afternoon.[79]

Neither Dr. Johnson nor David Hartley (the shortness of the time which elapsed since the Flood convinced him that both language and writing were due to direct miraculous agency) nor even Monboddo knew that there had been lying in the Sloane Collection since the end of the seventeenth century a rudely chipped, spear-shaped flint which had been unearthed in association with an elephant's tooth from the soil "opposite to black Mary's near Grayes inn lane." That flint weapon epitomized the story of Man of the Ancient Stone Age—when he and a group of strange and now long extinct animals inhabited the valley of the Thames in a dim and dateless past.[80]

Sir William Lawrence in his *Lectures on Physiology, Zoology, and the Natural History of Man* commented on Monboddo's theory that man and the orang-outang were one and the same species: "A poor compliment to our species as any one will think who may take the trouble of paying a morning visit to the Orang-Outang at Exeter Change."[81] Yet Sir Francis Galton says: "The subject of prehistoric civilization was novel even as late as the early fifties. . . . The horizon of the antiquarians was so narrow at about the date of my Cambridge days that the whole history of the early world was

77 Knight, *op. cit.*, p. 50.

78 Archbishop James Ussher, *The annals of the world* (London, 1658), The Epistle to the Reader.

79 E. Fisher, *The marrow of modern divinity* (Boston, 1743), 10th ed., pp. 32-3.

80 Clodd, *op. cit.*, p. 859.

81 Sir William Lawrence, *Lectures on physiology, zoology, and the natural history of man*, Salem, Mass., 1828, p. 110.

literally believed by many of the best informed men, to be contained in the Pentateuch."[82]

"A very shrewd friend" implored Huxley not to publish *Man's Place in Nature* as it would certainly ruin all his prospects. Huxley said, "like the French foxhunter in *Punch*, 'I shall try.'" The shrewd friend in question was none other than Sir William Lawrence. Yet half a dozen years before, that same Lawrence had been ostracised for his book on man "which now might be read in a Sunday School without surprising anybody."[83]

The *Origin and Progress of Language* ran into a light storm of criticism. Hume remarked to Adam Smith: "It contains all the absurdity and malignity which I expected, but is writ with more ingenuity and in a better stile than I look'd for."[84] "Lord Monboddo when he talks of men with tails," wrote Mrs. Thrale, "sets all those who *have none* o'laughing." Yet she loved not that scoffing spirit so rife among the English. "Derision is to me, perhaps because I have suffered so much by it, particularly offensive."[85] The good Lord Lyttelton mildly asked: if one granted God the miracle of creating man and sustaining him, why not suppose the further miracle of teaching him the use of articulation and language?[86]

The most truculent criticism appeared in *The Edinburgh Magazine and Review*:

> Laying aside the dry and hypocritical formality of addressing the author as a learned man. . . .
>
> His principles are absurd or whimsical, his illustrations erroneous, his execution everywhere feeble, and aiming at originality and distinction, he is of all writers alive, the most chargeable with plagiarism. The honor of singularity, therefore, which he seems so ardently to desire he will undoubtedly obtain. And if by accident his performance should pass down to posterity, it will, when compared with other books of the present age be regarded as a very uncommon monument of the eighteenth century.[87]

(True, the *Origin and Progress of Language* exhibits pertinence engulfed in a weltering flood of sense and nonsense, but that

[82] Francis Galton, *Memories of my life*, London, 1908, pp. 66-67; Clodd, *op. cit.*, p. 860.

[83] Leonard Huxley, *Life and letters of Thomas Henry Huxley*, New York, 1900, II, 365; I, 191.

[84] *The letters of David Hume*, II, 277.

[85] Mrs. Hester Thrale Piozzi, *Thraliana*, Oxford, 1942, ed. by Katherine C. Balderston, p. 768.

[86] Rose M. Davis, *The good Lord Lyttelton*, Bethlehem, Pa., 1939, pp. 413-14. When Shelley sent to Clio Tichman for books he included among others in the list Monboddo's *Origin and progress of language* solely on Peacock's recommendation. (Van Doren, *op. cit.*, p. 56.)

[87] *The Edinburgh Magazine and Review*, 1774, I, 323, 328, 370; II, 430.

nasty attack goes too far.) Kerr attributes the failure of the *Edinburgh Magazine and Review* to the harsh and unmannerly treatment of Monboddo's work.[88] Though the magazine was conducted with talent, its fate was well deserved.

Dr. Johnson called on Robertson, formerly Monboddo's clerk, who translated La Condamine's *Account of the Savage Girl* to which his lordship wrote a preface. Robertson said it was plain to him the girl had confounded what she imagined with what she remembered. Dr. Johnson said:

> It is a pity to see Lord Monboddo publish such notions as he has done; a man of sense and of so much elegant learning. There would be little in a fool doing it, we should only laugh, but when a wise man does it, we are sorry. Other people have strange notions, but they conceal them. If they have tails, they hide them, but Monboddo is as jealous of his tail as a squirrel.[89]

There was little love and much tartness and sportiveness between Dr. Johnson and Lord Monboddo. Johnson still thought Monboddo what he called *Hermes* Harris, a prig in literature,[90] and Monboddo returned in kind. The "man with a tail" was provocative meat and drink for entertainment.

On 30 September 1769 Boswell dined at the Mitre Tavern. He attempted to argue for the superior happiness of savage life.

> *Johnson:* Sir, there can be nothing more false. The savages have no bodily advantages beyond those of civilised man. They have not better health; and as to care and mental uneasiness, they are not above it, but below it like bears. No, Sir, you are not to talk such paradox; let me have no more on't. It cannot entertain, far less can it instruct. Lord Monboddo, one of your Scotch judges, talked a great deal of such nonsense. I suffered him, but I will not suffer *you*.
>
> *Boswell:* But, Sir, does not Rousseau talk such nonsense?
>
> *Johnson:* True, Sir, but Rousseau *knows* he is talking nonsense and laughs at the world for staring at him.
>
> *Boswell:* How so, Sir?
>
> *Johnson:* Why, Sir, a man who talks nonsense so well must know that he is talking nonsense. But I am *afraid* [chuckling and laughing] Monboddo does not know that he is talking nonsense.[91]

At Bennet Langton's, Dr. Johnson attacked Monboddo's speculation on the primitive state of human nature, observing: "Sir, it is all conjecture about a thing useless, even were it known to be

88 Robert Kerr, *Memoirs of the life of William Smellie*, Edinburgh, 1811, I, 412.
89 Boswell, *Life of Johnson*, V, 111.
90 *The Scots Magazine, 61*, 730.
91 Boswell, *Life of Johnson*, II, 73-4. See also II, 219; V, 46.

true. Knowledge of all kinds is good. Conjecture as to things useful is good, but conjecture as to what it would be useless to know, such as whether men went upon all four is very idle."[92]

When Monboddo controverted Johnson's proposition that the Gaelic of the Highlands was not written till of late, Johnson replied: "Of a standing fact there ought to be no controversy. If there are men with tails, catch an *homo caudatus;* if there was writing of old in the Highlands or Hebrides, in the Erse language, produce the manuscripts."[93]

Though Boswell never heard Johnson say anything severe of Monboddo, when he mentioned Monboddo's name he "grinned horribly a ghastly smile." "Well, how does Monny?" he once asked Boswell.[94]

Foote paid Monboddo the compliment of saying he was "an Elzevir edition of Johnson,"[95] which Boswell erroneously interpreted as a miniature or pocket edition. The biographer himself felt the two men had several points of similarity between them—clearness of mind, precision of speech, and love of research. Be that as it may, Monboddo and Johnson could forget feuds and meet as gentlemen.

It was the vacation, and the judge as usual was living in the guise of farmer on his ancestral estate.[96] Thither Boswell despatched a letter announcing that Johnson had with touching magnanimity expressed a wish to "go two miles out of his way to see Lord Monboddo." ("The magnetism of his conversation," Johnson admitted later, was the deciding factor.)[97] Boswell with

92 *Ibid.*, II, 259-60.

93 *Ibid.*, II, 383.

94 *Ibid.*, IV, 273.

95 Boswell's *Journal of a tour to the Hebrides*, p. 51n.

96 Monboddo was an admirable landlord. He never raised his rents when rents were everywhere rising and never dismissed a poor tenant. "Improvisers" like Lord Kames he denounced as "desolators" because they made big farms and depopulated the lands of cottagers. "I have endeavored," says Mr. Sylvan Forester (a blend of Shelley and Monboddo) in *Melincourt*, "as much as possible to recall the images of better times when the country was well peopled from the farms being small and cultivated chiefly by cottagers who lived in what was in Scotland called a *cottar town*. Now you may go over vast tracts of country without seeing anything like an old English cottage." (Peacock, *Melincourt*, pp. 58-9.) Forester loves Plato and the ancients, hates luxury, and is convinced that man has deteriorated in size and strength. See also *Antient metaphysics*, III, 306, quoted in Graham, *op. cit.*, p. 194; Boswell, *Life of Johnson*, V, 78n; *The Scots Magazine*, 1799, *61*, 727; *Annual Register*, 1799, *41*, 363.

97 Boswell, *Journal of a tour to the Hebrides*, p. 51; Samuel Johnson, *A journey to the Western Islands*, in *Works*, London, 1816, ed. by Arthur Murphy, VIII, 216. Johnson's account of his tour roused the country into a flame. Everybody found some reason to be affronted. The doctor had been looked upon as a kind of miracle in Scotland and now newspapers, magazines, pamphlets all teemed with abuse of him. "But those who make gods and then fall down and worship them should not be disappointed at the stupidity of their own idols." Edward Topham, *Edinburgh life 100 years ago*, Edinburgh, 1886, pp. 92-4.

anticipatory pleasure, no doubt, thought of pitting one against the other as two game cocks. About a mile from Monboddo where the road turned off, Boswell's servant Joseph was waiting to tell them that Lord Monboddo expected them to dinner. They drove over the wild moor. It rained and the scene was dreary. Dr. Johnson repeated with solemn emphasis Macbeth's speech on meeting the witches.

Finally the lexicographer and judge met. If they did not fall upon each other's neck, they on the whole spent a pleasant time together. Monboddo received them at the gate most courteously, pointed to the Douglas arms upon his house, and told them his great grandmother was of that family. "In such houses," said he, "our ancestors lived who were better men than we." "No, no, my lord," said Dr. Johnson, "we are as strong as they and a great deal wiser." This was an assault upon Monboddo's capital dogmas, and Boswell was afraid there would be a violent altercation before they even got into the house. "But his lordship is distinguished not only for 'ancient metaphysics' but for ancient politesse—'la vielle cour' " —and he made no reply.

Monboddo was dressed in a rustic suit and wore a little round hat. He told them they now saw him as Farmer Burnett and they should have his family's dinner, a farmer's dinner. He said: "I should not have forgiven Mr. Boswell had he not brought you here, Dr. Johnson."

The ice broken, the two men talked genially concerning many topics in which they had a common interest. Both spoke highly of Homer ("Bravo," thought Boswell, "they agree like two brothers"), the decrease of learning in Scotland (Monboddo: "You, sir, have lived to see its decrease in England, I its extinction in Scotland."), the scholarship of Bishop Warburton, *Hermes* Harris, and the momentous problem of whether the savage or London shopkeeper had the better existence. (Monboddo cast his vote for the savage.) Nothing was said of orang-outangs or tailed men. Johnson subsequently examined young Arthur, Monboddo's son, in Latin, an ordeal the youth weathered fairly well. The doctor ate a hearty dinner ("admirable soup," ham, peas, lamb, and moor fowl) and the judge suspected him of gourmandism.

When Boswell said they must be at Aberdeen, Monboddo replied, "Well, I'm like the Romans, 'happy to come, happy to depart.' " Gory, Monboddo's black servant, was sent to put them on the right road. When Gory was going to leave them, Johnson

called to him, "Mr. Gory, give me leave to ask you a question. Are you baptized?" Gory told him he was and confirmed by the Bishop of Durham. Johnson then gave him a shilling.[98]

The honeymoon of friendship lasted not long. In his *Origin and Progress of Language,* Monboddo attacked the Great Cham in vitriolic fashion.

> What I have said here of Dr. Johnson will, I know, be very unpopular, as the Doctor was very much admired during his life and has been wonderfully celebrated since his death. But I write neither for profit nor fame, or if I were desirous of fame, I think I could say with Milton 'that I am not so destitute of other hopes and means more certain to attain it,' as to become the panegyrist of Dr. Johnson, or if I had desired that reputation, I could not have exceeded, nor even have come up to what Dr. Beattie has said in his praise, for in two words he has celebrated him more than all his other encomiasts put together . . . for Dr. Beattie has called him *the great and the good Dr. Johnson.* Now some men have been *great* that were not *good,* and others have been *good* that were not *great,* but to be both *good* and *great* makes a character absolutely complete. . . .
>
> But though I were able to praise Dr. Johnson as ably as Dr. Beattie has done, I am not at all disposed to display my panegryrical talents in that way. So far from that, I hold that the praise and admiration which so many of the English nation (not the whole, nor the men of learning and taste among them) have bestowed upon Dr. Johnson, both alive and dead, is one of the greatest disgraces that ever befel them, considered as a nation of learning and taste, and the most adverse to their national character, for Dr. Johnson was the most invidious and malignant man I have ever known who praised no author or book that other people praised and in private conversation was ready to cavil at and contradict everything that was said and could not with any patience hear any other person draw the attention of the company for ever so short a time.[99]

After mentioning his debt to English reviewers for their favorable reception of his work (a man is never a prophet in his own country—the Scotsmen were scurrilous), Monboddo continues:

> I should be thought to do injustice to Dr. Johnson if before I took leave of him I did not bestow some commendation upon his English Dictionary. It is certainly a most laborious and, I think, an useful work. But there are many works useful and even necessary which require no genius at all, and dictionary making is one of these. Julius Caesar Scaliger called the laborers of this kind, *les portefaix de la républiqué des lettres,* the porters of the republic of letters.[100]

Yet there were in Dr. Johnson's time composers of Greek and Latin dictionaries, among them Henry Stephen,

[98] Boswell, *Journal of a tour to the Hebrides,* pp. 51-8; Boswell, *Life of Johnson,* V, 74-84.

[99] *Of the origin and progress of language,* V, 269-71.

[100] *Ibid.,* V, 273.

a man of genius. . . . I think the learned world has infinite obligations to him for stooping to the labor of compiling a dictionary even of so noble a language as the Greek. But to compile a dictionary of a barbarous language such as all the modern are, compared with the learned, is a work which requires neither genius nor learning and which a man of real genius rather than undertake would choose to die of hunger, the most cruel it is said of all deaths.[101]

So much for Dr. Johnson. What about his biographer? Boswell liked Monboddo and had great respect for him. Monboddo was a spiritual tonic to him, buoyed him up, gave him hope and zest. He affirmed positively what Boswell was doubtful of—the certainty of a future life, the rewards of virtue. Boswell always speaks with awe of Monboddo's strength and firmness of mind, the depth of his knowledge, the saintliness of his character. A record of their contact is interesting.

"He pleases me by an enthusiasm for *spirit* against the *materialists,*" Boswell remarks after talking with Monboddo in the robing room about Lord Hailes' *Annals* and Scottish antiquities.[102] On 3 February 1775 he went to dine at Monboddo's and had an agreeable meeting. Monboddo talked of Wedderburn's parts as an excellent Greek and Latin scholar, of Shakespeare, Pope, and Dr. Johnson. "My lord's manliness of mind and store of knowledge humbled me" (which seldom happened in the case of Dr. Johnson). "He and I drank each a bottle of claret slowly."[103]

Boswell in doleful dumps was aroused to noble hope again by an accidental conversation in the library with Monboddo "who talked of Spirit like Plato himself and said, 'Shew me anything destroyed and then maintain the annihilation of mind.' "[104] Again when both walked to Newtown (Monboddo, on hearing Washington was a fop, said, "So was Julius Caesar" and repeated Suetonius on this), Boswell mentions that he was "roused by Monboddo's strength of mind." About three months later we find Boswell visiting Monboddo who mentioned his feeling no uneasiness during his late dangerous illness at the thought of going into the world of spirit. "He talked with such confidence as communicated it to me for the time. I thought I could die easily in company with him. I was like a weak sighted passenger at sea who acquiesces in the assurance of a steady strong eyed pilot that he sees land." Mon-

101 *Ibid.*, V, 274.
102 *Private papers of James Boswell from Malahide Castle,* XI, 74-5.
103 *Ibid.*, XI, 88-9.
104 *Ibid.*, XII, 26, 125.

boddo said a man's life must be miserable who is afraid of death.[105]

A note of 20 June 1779 reads: "Dined with Monboddo to whose card of invitation I had answered that I seldom dined abroad on Sunday. But I considered him as a *Sacerdos* by whose conversation my mind was improved." In the conversation that followed Monboddo said if a man had a proper taste for intellectual pleasure, which was the highest of any, he would think a future state very agreeable. MacLaurin owned that his father had great satisfaction in mathematics. "Well," said Monboddo, "if there is so much satisfaction in the contemplation of lines and figures which is but an inferior species of intellectual enjoyment, how much more must there be in the contemplation of higher subjects of God and providence and all his operations." He would not allow a philosopher to indulge in women as a pleasure but only as an evacuation, for he said that a man who used their embraces as a pleasure would soon have that enjoyment as a business than which nothing could make one more despicable."[106]

Monboddo served Boswell not only as a stout pillar of spiritual strength but as a practical adviser. Through Monboddo and Lord Hailes, Boswell enlarged the scope of his work on Corsica to include an essay on the situation, extent, air, soil, and production of Corsica and a concise view of the Revolutions that Corsica had undergone from earliest times. Monboddo was one of those who read the manuscript.[107]

Boswell talked to him also of his marrying. Monboddo was sure that Margaret Montgomerie was the woman for Boswell, thought her being a little older nothing, that she would bring him children worth rearing, "which was seldom the case nowadays."[108] Then there was the settlement of Auchinleck's estate. Monboddo urged Boswell to adopt a conciliatory attitude, but Boswell, calm and determined, "had the resolution of a Roman" for the support of male succession in settling the estate.[109]

The publication of Boswell's *Life of Johnson* brought about an estrangement between Monboddo and Boswell. Once Boswell was in the Advocates' Library when Monboddo entered. Boswell bowed to him, but Monboddo did not speak. He heard afterwards that

105 *Ibid.*, XIII, 79-80, 92.
106 *Ibid.*, XIII, 260.
107 *Ibid.*, VII, 206, 229.
108 *Ibid.*, VIII, 37-8, 41, 52-3.
109 *Ibid.*, X, 79, 90-1.

Monboddo was "violent against him." "I did not care," said Boswell. "I considered that it would make him *fair game* in Dr. Johnson's *Life*."[110] But despite reports Monboddo was still kind.[111] Boswell's last reference to Monboddo, if it is to Monboddo, was unfavorable, ungrateful, and ungenerous. In a letter to Alexander Boswell, 14 December 1794, he calls the judge a "peevish, democratical man:

> My father described him as catwitted which is, I believe, a Scotch word, or rather phrase only, and means, I think, a compound of trifling and biting or scratching. Yet he has talents in a certain degree and a variety of learning and knowledge. But both his manners and his false philosophy are much against him and I understand he is grown considerably worse of late. I have seen him but twice these eight years and that not to his advantage.[112]

At the close of the century the venerable form of Monboddo, meagre, emaciated, plain, and toothless, deaf, and nearsighted was one of the quaintest objects in the Edinburgh streets—his face still shrewd, his manners delightfully courteous, his dress old-fashioned.[113] Shortly before his death he said to Dr. Gregory, his medical adviser and friend, "I know it is not in the power of Art to cure me. All I wish is euthanasia—a happy death.[114] He died on 26 May 1799. "Now with thy Plato shalt thou rest in peace."[115]

Was Lord Monboddo just "a character rarely to be met with in common life, being fitter for a comedy or novel than anything else?"[116] That summation is cursory and unjust. Leslie Stephen called Monboddo a "thinker of considerable ability. . . . His six quartos upon *Antient Metaphysics* and his six octavos upon the progress of language contain much acute thought amid huge masses of digression, repetition, and apology for eccentric crotchets." Professor Lovejoy, after remarking that Monboddo was the first British champion of evolutionism or near evolutionism in biology and that he anticipated Erasmus Darwin's *Zoonomia* by twenty years, goes on to say: "He was one of the few men of his time who really had what may be called the genetic habit of mind. The Aristotelian distinction 'between the power of *becoming* anything, and the actually *being* that thing' or 'between *capacity* and *energy*' is fundamental to his whole doctrine." Ashley Montagu in his *Edward*

110 *Ibid.*, XVI, 155.
111 *Ibid.*, XVII, 92, 105.
112 *Ibid.*, XVIII, 330-1.
113 Graham, *Scottish men of letters*, p. 188.
114 Knight, *op. cit.*, p. 91.
115 *The Scots Magazine, 61*, 731.
116 Gray, *Some old Scottish judges*, p. 41.

Tyson, 1650-1708 states: "Monboddo has not yet received the attention he deserves from serious scholars. His work was so far ahead of its time that it failed for the most part to be appreciated and is today virtually forgotten. Yet the principal theses which Monboddo sought to establish are now generally accepted."[117] In conclusion we quote from Thomas Jefferson Hogg, friend of Shelley, a shrewd appraiser of mind and character:

> The bright lights of Scottish Jurisprudence are not lightly to be contemned. There have been some truly great men in their College of Justice. We cannot boast such names in England among our judges—by no means. Lord Monboddo—some whimsical fancies as spring up in inventive minds like weeds in a rich soil alone excepted—was a star of the first magnitude. So profound a scholar as James Burnett—a genius so original, so splendid, a man so learned, so liberal minded—our English Bench could never show.[118]

One of the best posthumous tributes to Lord Monboddo was paid by Lord Neaves of the same Court of Session.[119] Since we have dealt with caudal appendages in these pages, the poem is not inappropriate:

I

'Tis strange how men and things revive,
Though laid beneath the sod, O!
I sometimes think I see alive
Our good old friend Monboddo!
His views, when forth at first they came
Appeared a little odd, O!
But now we've notions much the same;
We're back to old Monboddo.

II

The rise of Man he loved to trace
Up to the very pod, O!
And in Baboons our parent race
Was found by old Monboddo.
Their ABC he made them speak
And learn their qui quae quod, O!
Till Hebrew, Latin, Welsh, and Greek
They knew as well's Monboddo.

117 Leslie Stephen, *History of English thought in the eighteenth century* (New York, 1876), I, 68; Arthur O. Lovejoy, *op. cit.*, pp. 289-90; M. F. Ashley Montagu, *Edward Tyson*, p. 409n.

118 Thomas Jefferson Hogg, *Life of Percy Bysshe Shelley, London*, 1858, I, 454.

119 Knight, *op. cit.*, pp. 19-20; Clodd, *op. cit.*, pp. 861-2.

III

The thought that men had once had tails
Caused many a grin full broad O!
And why in us that feature fails,
Was asked of old Monboddo
He showed that sitting on the rump,
While at our work we plod O!
Would wear th'appendage to the stump
As close as in Monboddo.

IV

Alas! the good lord little knew
As this strange ground he had, O!
That others would his path pursue,
And never name Monboddo!
Such folk should have their tails restored,
And thereon feel the rod, O!
For having thus the fame ignored
That's due to old Monboddo.

V

Though Darwin now proclaims the law,
And spreads it far abroad, O!
The man that first the secret saw
Was honest old Monboddo.
The architect precedence takes
Of him that bears the hod, O!
So up and at them, Land o' Cakes,
We'll vindicate Monboddo.

VI

The Scotchmen who would grudge his praise,
Must be a senseless clod, O!
A monument then let us raise,
To honor old Monboddo.
Let some great artist sketch the plan,
While Rogers[120] gives the nod, O!
A Monkey changing to a Man!
In memory of Monboddo.

[120] Promoter of Wallace monument.

Some Episodes in the Medical History of Emperor Charles V

An Imperial Problem and the Problem of an Emperor[1]

CHARLES D. O'MALLEY*

THROUGH inheritance from his mother and by election to the imperial throne Charles of Hapsburg or, as he was known after 1519, the Emperor Charles V, became the ruler, actual or nominal, of territories far greater even than those controlled by his famous namesake of Carolingian times. However, such vast possessions in Europe and the New World entailed responsibilities made all the more onerous by the theory of divine and absolute monarchy. Full responsibility for decision and action rested with the ruler so that the state of his health, physical and mental, had ultimately an influence upon the fate of his territories. This in some degree is obvious, in some degree must be left to individual judgment. Nevertheless, it should be apparent that the effect of physical well or ill-being upon the emperor's mind must at times have produced varying degrees of elevation or of depression of spirit which could not have failed to play some part in his decisions.

As the emperor's far-flung empire was the result of inheritance from many sources, so likewise his physical and mental inheritances were the result of many and various dynastic marriages, of which some at least had better have been left unconsummated. From his birth in 1500 and through a boyhood occasionally visited by convulsive fits, which appear finally to have been outgrown, Charles has been described as of delicate physique and constitution which was in ill accord with his love for the more vigorous and active forms of knightly exercise. In time, both his spirit and his appetites, over which he frequently had less control than he possessed over his subjects, tended to break down such poor constitution as he possessed.

In appearance Charles was of middle height and at first thin if not frail. Most noticeable of all was the "Hapsburg jaw," prog-

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[1] A paper read in April 1956 at the University of California in Los Angeles during the celebration of the twenty-fifth anniversary of Robert G. Sproul as President of the University of California.

nathous and endowed with a thick underlip, which produced not only malocclusion but a strong tendency to mumble. This prominent disfigurement, appearing clearly in the portrait of the youthful prince by Barend van Orley, was later partially concealed by a beard, although all the skill of Titian could not hide it entirely in any of his several portraits of the emperor.

More sombre was the emperor's inheritance from his mother Joanna of Spain whose mind, delicately balanced if not always somewhat unbalanced, was finally toppled completely by the combination of her husband's long absences and infidelities and then his early death in 1506. Presumably, Joanna was the unlucky heir of her grandmother, a Portuguese princess who died quite mad. Charles' mother, who lived a long if not lucid life, dying only three years before her son, may well have been responsible for some of his phlegm and melancholia, to use expressions of that age.

It must be confessed with regret that gluttony was one of the factors which contributed to the emperor's bouts of poor health and so produced for his medical staff both an imperial problem and the problem of an emperor who did not heed the advice of his physicians. Indeed, not only the imperial medical staff but the emperor's confessor as well took up the matter which constituted a sin as well as a dietary abuse. In a letter of 1530 that good ecclesiastic admonished the emperor "not to eat of those dishes which are injurious to you; and every one is aware that fish disagrees with your chest. Remember that your life is not your own, but should be preserved for the sake of others, and if your Majesty chooses to destroy your own property, you should not endanger what belongs to us." The letter continues with a reference to Charles' asthmatic condition and fits of coughing: ". . . I write in much distress for I am informed that your chest is sometimes heard farther off than your tongue. I once wished your Majesty to do some penance for old sins, but if you will change this injunction into a firm resistance against gluttony, it will be to you as meritorious as flint and scourge."

A second letter from the confessor to Covos, the Grand Commendador, adds: "It is desirable that you advise him to abstain from everything hurtful. Entreat him to be careful in his diet and to eat wholesome instead of highly spiced food, and especially to avoid fish which is so bad for him."[2]

2 *Correspondence of the Emperor Charles V*, ed. William Bradford, London, 1850, pp. 365-6.

From an inordinate love of highly seasoned food in large quantity Charles' palate had apparently lost all sensitivity of taste, and as a result the quantity of spices in his food had constantly to be increased. Then, too, although it appears that he was allergic to seafood, yet he could not overcome his desire in that direction, especially for oysters, eel pies, and anchovies, not to mention a fondness for frog's legs. Gradually the emperor found himself paying the bill for these excesses. He began to put on weight, far too much for the slenderness of his frame, while at the same time preoccupations of state compelled a sedentary life broken only occasionally by too sudden and violent exertion and exercise for which he was by then wholly unprepared.

Charles became a poor sleeper, and after the age of forty he is said never to have had more than four consecutive hours of sleep, and this tended to produce a vicious circle since in wakefulness he was a prey to his appetite. Gradually a schedule was developed for bed and table. At five in the morning he usually had a fowl prepared with milk, sugar and spices, after which he retired for a time. Rising once again later in the morning he attended a private mass, held several audiences, attended a second and this time public mass, whence immediately he repaired to the table for the noon meal. So constant did this practice become that the emperor's progress was proverbially termed *dalla messa alla mensa,* "from the mass to the mess." This meal normally consisted of twenty courses, mostly meat and fish. About eight in the evening a dish of anchovies was served him, and a supper followed at midnight.[3] On the other hand, despite his heavy feeding Charles was more temperate in his drinking, relative to the times, although nauseously enough he started the day off with a draught of warm beer.

In June of 1550 Charles was travelling by boat from Cologne to Mainz, and during the five days consumed by this journey he began the dictation of his memoirs to one of his gentlemen secretaries. Upon reading these memoirs it is interesting to note that the emperor recalled the time and place of each of his attacks of gout, that queen of ailments which apparently had made an incisive and lasting impression upon his memory. It was a heritage which the emperor fostered by his dietary abnormalities and eventually passed on to his son, the later Philip II of Spain, and it is with this frequently recurring ailment that we shall be mainly concerned.

[3] *Relazioni degli ambasciatori veneti,* ed. Albèri, ser. I, vol. I, Firenze, 1839, p. 342.

As Charles states in his memoirs, it was "in 1528 that the emperor, then en route for Valladolid, was for the first time attacked by gout."[4] These attacks, recalled by the emperor as to time, place, and sequence, gradually became more frequent and more crippling and incapacitating. So in 1538 when in Genoa with Pope Paul III, the emperor found it impossible to go on to Rome according to plan.[5] In 1542 while in Valladolid he was obliged to forego talks with the English ambassador which he, the emperor, had particularly requested.[6] In 1543, after successfully overcoming the rebellious Duke of Guelders and en route for Brussels for a meeting of the Estates-General which he had convoked, Charles was forced to suspend his trip at Diest where the members of the Estates must find the emperor.[7] Thereafter a meeting of the Imperial Diet had been called to meet at Worms, but another attack of gout made this impossible so that the emperor was compelled to send his excuses to the assembled princes and delay his appearance for three months.[8] It is difficult to say just how much these bouts of illness and the resultant incapacity of the emperor affected imperial affairs, although unquestionably they were influential not only since they prevented prompt decisions and left much business unfinished for long periods of time, but since illness became almost the predominating factor in the emperor's life, it tended to emphasize and underline a pre-existent melancholia and ultimately produced a depression of spirit which was a factor finally of no little importance in leading him to his almost unprecedented abdication of the imperial throne.

Eventually the gout became pervasive in its effect, striking the emperor's shoulder, arm, hand, and foot. In 1545 the Venetian ambassador, Bernardo Navagero, wrote that "the poor prince has aroused the compassion of all who have seen him, such is his poor health, feebleness and pale coloring." He could only travel in a litter and "it is with great difficulty and leaning on a stick that he can approach the litter."[9] On another occasion Navagero described the emperor as wearing a black sling around his neck for the support of his arm, while his fingers appeared both distorted and crippled.[10]

4 *Mémoires de Charles-Quint*, ed. A Morel-Fatio, Paris, 1913, p. 199.
5 *Ibidem*, p. 221.
6 *Ibidem*, p. 231.
7 *Ibidem*, p. 239.
8 Karl Brandi, *Kaiser Karl V*, München, 1941, p. 452.
9 Dispatches of Bernardo Navagero, Ms. 102 Ex Brera, Archivio di Stato, Venezia, 18 January 1545.
10 *Ibidem*, 27 March 1545.

Since birth Charles had had a staff of personal physicians, although during his earlier years and the first part of his imperial reign they were men of no significant stature and certainly not the sort to thwart the imperial excesses—if any one ever could. In 1543, however, the medical service gained considerable lustre, first by the appointment of Cornelius van Baersdorp who, although not the most illustrious physician of his time, yet as a descendant of the distinguished family of Borsselen he was certainly one of the most illustrious persons of the sixteenth century to choose medicine as a career.[11] Baersdorp was a conscientious physician whose ordinary abilities were enhanced by a degree of common sense and a personal loyalty to the emperor which at times led him to employ plain speaking toward his august patient. The second appointment of that year was that of the famous Andreas Vesalius.[12] Baersdorp was personal physician to the emperor while Vesalius was attendant upon the imperial household, although at times the emperor preferred his services to those of his own personal physician. Such occasions produced a delicate situation and the pleasantly ridiculous condition in which the mighty prince, who was accountable to no one, consulted Vesalius in secret so as not to offend Baersdorp.

In 1547 Vesalius left the imperial court for a visit to Basel. What the purpose of the visit was we do not know, but at any event it was to be a short visit since the emperor fell ill—as usual with an attack of gout—and after three weeks' incapacity and despite the presence of his personal physician Baersdorp, he ordered a messenger to seek out Vesalius and direct him to return immediately to the imperial bedside.[13] Several months later a letter of the Bishop of Forlì announced that in the emperor's illness the capabilities of Baersdorp were not to be relied upon so that secretly Vesalius had undertaken care of the patient.[14] We may assume, however, that secrets were not well kept at the imperial court, and that Baersdorp must have been aware of the doubts cast upon his professional abilities. Nevertheless, he could have taken consolation from the fact that no matter what the fame or what the ability of Vesalius, that physician, too, might suddenly find himself supplanted by any glib-tongued quack who could offer the emperor something new in the way of panaceas. So it was that in the following year a Neapoli-

11 De Meyer, Notice sur Corneille van Baersdorp, *Ann. Soc. Méd.-Chir. de Bruges*, 1845, *6*, 35.

12 O'Malley, Andreas Vesalius, Count Palatine, *J. Hist. Med.*, 1954, *9*, 208.

13 R. Stintzing, *Ulrich Zasius*, Basel, 1857, Epp. 2, 3, 5.

14 *Nuntiaturberichte aus Deutschland 1553-1559*, X, Berlin, 1907, p. 79.

tan was brought to Brussels expressly and on the strength of his glowing promises of a cure for the emperor's gout. Suffice it to say that his promises were not fulfilled and he was eventually sent packing.[15]

Several other things conspired to prevent the emperor's recovery of better health. First and most obvious was his failure to modify his dietary habits. Allusion has already been made to Charles' voracity, his early morning meal, the noon menu, the later snack of anchovies, and finally his midnight supper. A contemporary who was often present at this last meal has left us a picture of it which indicates among other things that Charles approached his meals with the singleness of purpose that such serious matters deserved:

> I have often been present at the emperor's supper. . . . Young princes and counts served the repast. There were invariably four courses, consisting altogether of six dishes. After having placed the dishes on the table, these pages took the covers off. The emperor shook his head when he did not care for the particular dish; he bowed his head when it suited, and then drew it towards him. Enormous pasties, large pieces of game, and the most succulent dishes might be carried away, while his Majesty ate a piece of roast, a slice of calf's head, or something of that sort. He had no one to carve for him; in fact, he made but a sparing use of the knife. He began by cutting his bread in pieces large enough for one mouthful, then attacked his dish. He stuck his knife anywhere, and often used his fingers while he held the plate under his chin with the other hand. He ate so naturally, and at the same time so cleanly, that it was a pleasure to watch him. When he felt thirsty, he only drank three draughts; he made a sign to the physicians standing by the table; thereupon they went to the sideboard for two silver flagons, and filled a crystal goblet which held about a measure and a half. The emperor drained it to the last drop, practically at one draught, though he took breath two or three times. He did not, however, utter a syllable. . . . He paid not the slightest attention to the crowd that came to watch the monarch eat.[16]

A second factor to be taken into account in regard to the emperor's care was the lack of any remedy of value except rest and a discretionary diet. Otherwise, and coupled with a sparse regimen, the physicians as yet relied upon a complicated and terrifying quantity of drugs which although confirmed in the Galenic pharmacopeia, appear to have been accepted by the human body without enthusiasm or its improvement. So in 1545 the Bishop of Cortona was able to write that although the emperor was at the time suffering from his gout, what appealed to the bishop as most worthy of

15 Gachard, *Retraite et mort de Charles-Quint*, Introduction, Bruxelles, 1854, p. 18.

16 Bartholomew Sastrow, *Memoirs of a German burgomaster*, tr. A.D. Vandam, London, 1905, pp. 230-1.

sympathy as well as admirable for its indication of the patient's courage, was the emperor's subjection to some thirteen medicines, "of which," wrote the bishop, "weakest was compounded of a drachm of rhubarb and some mushroom, assisted intermittently by cassia and innumerable pills."[17]

As a third factor it must be noted that the emperor, despite his staff of medical attendants, presumably chosen because of their ability, frequently, as has already been indicated, would give ear to any quack who could promise a quick recovery through the use of a panacea. Here we have a somewhat astonishing contrast between Charles who in political matters had become a shrewd judge of men, suspicious and slow to make up his mind, but in matters of health incredibly gullible. In respect to therapy it has already been stated that physicians could employ only the complicated formulae of the Galenic pharmacopeia in conjunction with diet and rest. By and large the drugs were of no value but, on the other hand, most of them were not particularly harmful, and as a result rest and especially diet were in time usually able to bring the emperor some relief. Yet such procedure was slow and the emperor always impatient. Accordingly, as Europe expanded into America and the Far East and came into contact with other civilizations, certain exotic remedies or pseudo-remedies were brought home from those distant parts, always of course with glowing accounts of their healing qualities.

The first of these new drugs which must be noted was the so-called holy wood or guaiac which had been given a European vogue through a treatise by the German humanist and nationalist Ulrich von Hutten, in which he described his own case of syphilis and the benefits he had received from the guaiac.[18] Suffice it to say that he died, but the guaiac remained not only as a specific for syphilis but as well for many other complaints, at least partly because of its exotic origin in the West Indies. Of course it had no beneficial effect on the emperor's gout, and in time with the appearance of the China root, or smilax, from the equally exotic Far East, claimed to be effective for syphilis and various other ailments, it too must be tried.

Hence, when in the winter of 1545 the emperor was again in difficulties, it became a question as to whether the older treatment should be employed or whether the novel China root. Both the court and the medical staff voiced opinions in favor of one or the

17 *Nuntiaturberichte aus Deutschland*, VIII, 1898, pp. 105-06.
18 *De guaiaci medicina et morbo gallico*, 1519.

other,[19] and on 9 February the English ambassador Wotton was able to report that visiting the emperor for an audience, "I found him sitting on a chair, his feet resting upon another low chair, bearing one of his arms in a towel, looking very pale and weakly, worse than I saw him at any time before. [He told me] how the next day he was determined to enter into the diet of the wood of India."[20] Thus the party favoring the new treatment with the China root, frequently called the wood of India since that was declared to be one of its sources, triumphed, and the treatment was begun.[21] From the Venetian ambassador, Bernardo Navagero, we learn the regimen to be employed at this time. For a week the emperor was to drink the decoction made from the China root twice in the morning. His main meal at noon was to consist of meat and wine, followed in the evening by another draught of the decoction and then a supper of almonds, pine-nuts, and some paté.[22]

The procedure as outlined by physicians of that time was somewhat more complicated than the diplomat indicated, but the results, however, were far from spectacular. Nevertheless, the emperor's use of the new and alleged remedy gave it a certain cachet, and the imperial physicians were besieged by courtiers' requests that their ills—many of them, it must be confessed, syphilitic ones—be treated with the China root. Eventually one physician, Andreas Vesalius, acceded to a request for an evaluation of the new drug and in 1546 produced a book entitled *A letter on the China root.* To his credit it must be said that although he described the preparation and employment of the China root, yet he was unable to be enthusiastic over the results obtained. Indeed, as Vesalius wrote, no particular endorsement of the China root could be advanced as a result of the emperor's case, since "he had used it only for a fortnight, frequently varying his diet and changing his method of taking the decoction, in both instances according to his own judgment." Moreover, as soon as he had begun to feel better, he stopped its use. Throughout his treatment the emperor had been a very poor patient, and no physician's orders could restrain his appetites. "It is much easier," wrote Vesalius, "to speak and to write of these matters with assurance in the schools than to put them into practise in the treatment of princes—who insist on being

[19] Navagero, Dispatch 8 February 1545.
[20] Max H. Fisch, Vesalius in the English State Papers, *Bull. med. Libr. Ass.*, 1945, *33*, 232.
[21] Navagero, Dispatch 10 February 1545.
[22] *Ibidem*, 22 March 1545.

imperious in the case of their own medicine—and especially in the instance of gout which sometimes torments every joint of the body."[23] Nevertheless, the China root continued to be used hopefully for many years, and in the case of the emperor the diet and rest which sometimes accompanied treatment gave perhaps a certain false value to any drug no matter how lacking in efficacy.

From the middle of the century onward the emperor's health became steadily worse. His incapacitating afflictions recurred with greater frequency, and it must be remarked that within limits he bore them courageously. He began to seek compensation and solace in reading and more particularly in being read to. Yet from time to time the restraints which bodily weakness placed upon Charles' athletic and martial inclination led to outbursts of imperial wrath and impatience.

Despite his complaints Charles remained unable to control his appetite for any long period of time, and despite the conscientious efforts of his physicians he remained ever prone to give ear to the suggestions of the newest quack. Under these conditions the lot of the emperor's personal medical staff was not a happy one, and perhaps no one bore a greater burden than the personal physician whose fortunes or misfortunes at this time are portrayed in the letters of William van Male.[24] This aide-de-chambre, companion, secretary, reader to the emperor, and general factotum shared with Baersdorp a kind of enslavement to the imperial presence. Esteemed by Charles yet treated with a kind of thoughtless cruelty and never rewarded for his loyal endurance, van Male has left us a series of letters written to Louis of Flanders, chief of finances for the Netherlands, in which he has portrayed the daily life and vexations of the imperial household between the years 1550 and 1555. Van Male and Baersdorp were close friends in fact as well as in misery, and the letters frequently describe the lot of the personal physician. Baersdorp, possibly as a result of his distinguished lineage, had numerous friendships in high places. He was on terms of friendship with Louis of Flanders, the correspondent of van Male. He enjoyed the greatest esteem in the imperial family and became the titular physician to the queens Eleanor and Mary, sisters of the emperor. But all of this was of no avail in the struggle to retain the

[23] *Epistola rationem modumque propinandi radicis chynae pertractans,* in *Opera omnia,* II, Leyden, 1725, p. 622.

[24] *Lettres sur la vie intérieure de l'empereur Charles-Quint, écrites par Guillaume van Male,* ed. Reiffenberg, Bruxelles, 1843.

confidence of the emperor in his medical ability and to defend him against quacks.

The letters first take up the situation in Augsburg whither Charles had gone in September 1550 for a meeting of the Imperial Diet. Matters had gone badly for the emperor. His plan for the ultimate succession of his son Philip to the imperial throne had been thwarted, and the German princes were not favorably disposed towards the imperial plan for liquidation of the Schmalkalden war against the Lutheran states. Worst of all, Granvelle, the imperial chancellor had just died, and it was said that with his death the emperor seemed "to have lost his own soul."[25] Finally, the Venetian ambassadors reported that Charles, because of his ill health, had the intention of departing from Germany never to return.[26] It was against this doleful background that Baersdorp, although personal physician to the emperor, was compelled to compete for guardianship of the imperial health, ever growing worse, with a certain Caballus, a physician of no particular merit but possessed of the knack of gaining and holding the emperor's confidence. While Vesalius occasionally appears on the scene, the contest was really between Baersdorp and Caballus, and perhaps Vesalius, ever a discreet man, determined that in this particular instance the personal physician might well be left with full charge of the patient and all the woes which pertained to that charge.

The first description of the emperor in Augsburg is to be found in a letter of 30 September 1550:

> The emperor's health has been sufficiently sound, although a little earlier he was afflicted somewhat with haemorrhoids and a lack of appetite. He forewent public affairs and amused himself with hunting, reading and the pleasant conversation of his household; sometimes a large part of the day and night was set apart for the determination of grave affairs, when he called the king and queen into secret councils; he was well, I say, in accordance with his usual and wholly athletic ways and the almost effete weakness of his body. However, behold that thereafter by the bite of a nocturnal gnat at that joint of the hand which physicians call the carpus, a slight amount of the skin became swollen and provoked an itching; when the emperor was unable to endure it he gently scraped and scratched the surface with his nail. And who would believe it, I ask? Both his hand and his forearm became inflamed. . . . I laughed to myself at the old proverb about the elephant and the gnat when I saw what the bite of the most insignificant of insects could do to a king.[27]

[25] Brandi, p. 510.

[26] *Venetianische Depeschen vom Kaiserhofe*, I, Wien, 1889, p. 453.

[27] Van Male, p. 38.

However, van Male had overlooked the fact that there are further proverbs which refer to those finding pleasure in the woes of others, and in a letter of 25 November he was compelled to write: "A nephritis is now so tormenting me that as a result of the pain I am unable either to lie down or to stand up . . . [On the other hand] the emperor is in good health."[28]

The continuance of his complaint caused van Male to look with some dubiety upon the abilities of the imperial medical staff. On 13 January 1551 he wrote:

> For these last two months I have heard nothing except bilious and melancholic humors, phlebotomy, potions, pills and things of that sort, usually the very dirge of mortals. Meanwhile from this great congregation of physicians so far no one has gained a true knowledge of my ailment. First Caballus with great assurance announced it to be nephritis; Vesalius, an abscess in the kidney; Cornelius [van Baersdorp], a collection of symptoms which had flowed into the cloaca of my slight body and produced a wasting away. I asked them not to number my cook among this great variety of diseases, . . . and Baersdorp [looking at] me with a jaundiced eye . . . [took] his departure in formal terms as if he had been insulted.[29]

However, the illness of van Male and the good health of the emperor represented only a brief interlude. On 18 January the Venetian ambassadors wrote that "The emperor is again ill with the gout,"[30] and later in that year (1551) another Venetian ambassador was to write that:

> The emperor is fifty-one years old and of poor bodily constitution by reason of the gout from which he has suffered horribly all through the winter, as well as at other times. The physicians say that it has begun to ascend to his head and are very fearful that it will thereupon cause his death. He suffers frequently from asthma, and it is said that he displays some slight indication of the French disease. . . . All prophecy a short life for him.[31]

Van Male's next letter, 20 January 1551, supports this more doleful description:

> Today the emperor for the first time left the bed to which he has hitherto been firmly fixed. Yesterday he took some sort of drug whereby a great contention arose between Caballus and Baersdorp in the presence of the emperor . . . it was a notable conflict and worthy of description. Although that monumental ass Caballus pronounced a Hippocratic aphorism with an unheard of clumsiness and distortion, yet he continues to be consulted regarding the emperor's health. I should despair if schoolboys could not explain Hippocrates better. . . . Baersdorp with his sound training was

28 *Ibidem*, p. 2.
29 *Ibidem*, pp. 14-15.
30 *Venetianische Depeschen vom Kaiserhofe*, I, p. 495.
31 *Relazioni degli ambasciatori veneti*, ser. I, vol. II, p. 211.

astonished at the fellow's false . . . opinion and came to discuss it with me. I urged him to patience and dissimulation for nothing good could arise from a dispute.[32]

It is almost distressing to read in the next several letters that the emperor was enjoying better health, although it seems unlikely that the quack had succeeded where the trained physician had failed. It is much more probable that Charles had become sufficiently ill to undertake a period of diet and that this had in some degree alleviated his ailment. Nevertheless, personal calamity was never very far away from him. In a letter of 9 June we learn that as the emperor's health improved, so did his desire for activity. Since as yet he could not walk or ride comfortably on horseback, he had had a carriage constructed for excursions and hunting, or for warfare if necessary. However, as van Male wrote with somewhat whimsical classical allusions, "because I believe Diana is not in sympathy with Vulcan and Mars," the first time that Charles attempted to use his new carriage he fell out of it and "knocked out most of those few teeth nature had left him."[33]

A further letter of 20 July relates what had now become almost the normal course of events.

The emperor, so it pleases the gods, is now afflicted with dysentery, but, to speak frankly, since he is responsible for his ailment he can't complain of it. And those old tormenting haemorrhoids have contributed a new torture . . . and this morning he complained to me that insomnia has now been added to the list of all his ailments.[34]

Yet in view of the topsy-turvy state of the emperor's health it is no cause for astonishment that a letter of 28 July announces that "the emperor is now in better health and considering his departure."[35] This is confirmed by a second letter of 9 August to the effect that "The emperor is now in very good health and little by little prepares for his journey."[36] However, Charles was not given to hasty action, and partly as a result of political indecision, partly the result of the return of poor health he was still in Augsburg on 4 November when van Male wrote:

Doctor Caballus says that the emperor's health is in his own hands and that he will remain well or ill according to his own determination. I marvel that he scolds since in all things medical and otherwise he has displayed such great obsequiousness to the emperor.[37]

32 Van Male, pp. 22-3.
33 *Ibidem*, p. 20.
34 *Ibidem*, p. 25-6.
35 *Ibidem*, p. 49.
36 *Ibidem*, p. 20.
37 *Ibidem*, p. 58.

Hence even the quack had finally found it impossible to deal with such a patient.

The emperor's health continued its fluctuating course, although in general his condition was growing worse, and to his self-willed and maddening personal abuses he was now to add yet another. In a letter of 7 February 1552 van Male wrote: "yesterday [the emperor] prescribed some pills for himself; there were no unfortunate results."[38]

At the beginning of 1553, and after a week's delay caused by gout, the emperor gave an audience to Morison the English ambassador who reported to his government that in the three years he had been in Germany he

> had never seen the emperor so nigh gone, never so dead in the face, his hand never so lean, pale and wan; his eyes that were wont to be full of life when all the rest had yielded to sickness, were then heavy and dull, and as nigh death in their look as ever he saw any.[39]

This statement was corroborated by Sir Thomas Hoby who saw the emperor in June of that year. "He was indede verie feeble of his bodie and pale of his face; sitting in a chaier, laijing his feet uppon an other lesser abowt a foote or more from the grownd."[40] Sometime later, after his audience with the emperor, Morison chanced to meet with Vesalius and reproached him for the failure of the imperial physicians to bring about any improvement.

> I said 'The emperor will make the world set less by physic than you physicians would have it; that the emperor, ready to spend millions, can by all your recipes come by no health that is able to tarry with him two months together. . . .' [Vesalius'] answer was 'it is rather he that may teach all men to honor physic, which hath so oft plucked him from his grave.'[41]

In view of our knowledge of Charles' manner of life it does appear that the physician spoke with much justice.

In 1555 Charles finally began to put into operation his plan for abdication and retirement. He was badly discouraged and disillusioned in regard to the political and religious situation in Germany, and while the situation was indeed discouraging and his failure to achieve the ends he desired must be recognized, yet the effects of his ailments upon the state of his mind may by this time have caused the situation to look to the emperor even darker than it actually was. When Charles appeared before the Estates of the

38 *Ibidem*, p. 5.
39 Fisch, p. 238.
40 *The travels and life of Sir Thomas Hoby*, ed. Edgar Powell, London, 1902, p. 91.
41 Fisch, p. 239.

Netherlands to announce his intention of abdicating, supporting himself with a staff and leaning with his left hand on the shoulder of the prince of Orange, later known as William the Silent, he remarked that had the political situation been any different he would already have retired "considering the deplorable state of my health."[42] Yet at this very time, as if he were not already eating himself to death with sufficient alacrity, he caused a cook, one Anna de Andrada, to be sent to him from Portugal in order to stimulate his jaded palate and thereby to increase his food intake by the skilfull manner in which she prepared and seasoned his meals.[43]

In the late summer of 1556 Charles, now divested of his titles, retired to the Jeronomite convent of Yuste in Spain. The retirement, however, was not to be long or particularly pleasant. More and more disabled, compelled to hobble about ignominously on foot rather than on horseback, but still unwilling to give up his self-indulgence, Charles was a dying man. If anything were needed to assist him more rapidly on his way, it was supplied by those well-intentioned European princes who so kindly sent him barrels of oysters, anchovies, and Netherland sausage. The faithful Cornelius van Baersdorp was dispatched to the assistance of his former imperial patient, but of course to no avail. In some degree it is indeed astonishing that Charles managed to reach the age of fifty-eight and perhaps confirms the words of Vesalius that " . . . physic hath . . . oft plucked him from his grave." Now plagued by a recurring malarial fever and by a virtually constant goutiness, arthritic, nephritic, and now, too, more obviously a victim of arteriosclerosis, he died on 21 September 1558. From time to time historic personages have chosen to end their lives with sudden promptness, but it may be said that seldom if ever has there been a prince of such historic importance as Charles V, who slowly, methodically, but inevitably, ate his way into the grave.

[42] William Stirling, *The cloister life of the Emperor Charles the Fifth,* London, 1853, p. 8.

[43] Gachard, *Retraite,* Introduction, p. 11.

A Note on the "Winchester Goose" and Kindred Topics*

PAUL G. BREWSTER**

IN the French and English dictionary of Randle Cotgrave, first published in 1611, is the following definition under *Gorre:* "f. a sow (also the French pockes, *Norm);* also bravery, gallantness, gorgeousness, etc. *Femmes a la grande gorre,* Huffing or flaunting wenches; costlie or stately dames." Although this is one of the earliest instances, perhaps the earliest, of the application of the name of an animal to the venereal disease, it is not the only one. The following pages will treat, in part, of the "Winchester goose," and the reader may recall that the term "the black lion" was applied to a particularly destructive form of syphilitic ulceration prevalent in the British army during the Peninsular campaign of the Napoleonic wars.

It is not surprising that "grand-gorre" should have been included among the curses of the vindictive Scotchman nor that the unsavory objurgation, in the form of "pox take you" or "pox on it," should have survived to quite recent times. However, the word did not always mean the venereal disease. For example, we find the eminent seventeenth century preacher and metaphysical poet John Donne writing to his sister: "At my return from Kent I found Pegge had the poxe; I humbly thank God it hath not disfigured her." The prefix of *great,* the *great*-pox, in contradistinction to the smallpox was common enough, and in France *la grande verolle* and *la petite verolle* were in like contrast. One recalls in this connection the *mot* of Louis XIV, who, when it was announced in court circles that a certain actress notorious for her amours had just died of the smallpox, quipped, "It was very modest of her."

* The present paper makes no claims to completeness, being based as it is upon a rather cursory examination of the more readily accessible materials; a really exhaustive treatment of the subject would necessitate better library facilities than are available to me at the moment. As will be noted, I have drawn most heavily upon the literature (particularly the drama) of the sixteenth and seventeenth centuries, the period with which I am most familiar. However, there will be found also a number of quotations from and references to works, both poetry and prose, of a later date. The moral laxity which characterized the reign of Charles II makes it appear likely that a considerable amount of pertinent material could be found in the pages of Restoration drama.

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The nomenclature of the venereal disease is very extensive. In a play by Thomas Nashe, *Pierce Pennilesse,* 1592, is this passage: "But *cucullus non facit monachum*—'t is not their newe bonnets will keepe them from the old boan-ache." This most appropriate name is employed also by Shakespeare.[1] Dekker and Webster's *Northward Hoe,* 1607, has the term grincomes (I, iii), which appears also in Shakerley Marmion's *Holland's Leaguer* (IV, iii), Butler's *Hudibras* (III, i, 702), and (as a name for syphilis) in Middleton's *The Family of Love* (I, iii).

Allusions relating to a supposed French origin are endless, and there are numerous references to its Italian associations. Florio, in his *Worlde of Wordes,* 1598, has the verb *infranchiosare,* to infect or to be infected with the French poxe; to frenchifie. And on the other hand, the Frenchman Motteux, in his translation of Rabelais, which is a perfect treasury of quaint old English, makes Friar John say: "He looks as if he had been struck over the nose with a Naples cowl-staff." It is amusing to observe how these compliments are reciprocated. In a translation of the *Colloquies* of Erasmus, by Sir Roger l'Estrange, is this passage: "*C.* Your chin, too, looks as if it were stuck with rubies. *S.* That's a small matter. *C.* Some blow with a French fagot-stick (as they say). *S.* Right, it was my third clap, and it had like to have been my last." In his *The Malcontent,* 1604, Marston introduces the following jingle:

> The Dutchman for a drunkard,
> The Dane for golden locks,
> The Irishman for usquebaugh,
> The Frenchman for the ..... (V, ii)

One of the characters in Webster's *The White Devil,* 1612, exclaims bitterly:

> Would I had rotted in some surgeon's house at Venice, built
> upon the pox as well as on piles,[2] ere I had served Brachiano. (III, iii)

Donne associates the disease with both France and Italy, as shown by these lines:

> But Oh, God strengthen thee, why stoop'st
> thou so?
> Why? he hath travayld; Long? No, but
> to me

[1] For example, in *Troilus and Cressida* (II, iii), in which Thersites says: "After this, the vengeance on the whole camp! or rather, the bone-ache! for that, methinks, is the curse dependant on those that war for a placket."

[2] The pun here is obvious.

> (Which understand none) he doth seeme
> to be
> Perfect French and Italian; I replyed,
> So is the Poxe. *(Satires,* I, 1593)

In his *Caesar Borgia,* written in 1680, Nathaniel Lee speaks of the disease as the "Neapolitan pox" (I, i, 357) and the "Neapolitan itch" (I, i, 510), while in the still later (1693) *The Old Bachelor,* Congreve terms it the "French sauce" (V, 1).

To the Italians it was the French disease; to the French, the Italian disease; to the Germans, the French pox; to the Poles, the German sickness; to the Russians, the Polish sickness; to the Turks, the French disease. As we have noted, the English were more internationally minded, attributing it at one time to the French and at another to the Italians.

"Marbles" is one of the more unusual terms used to designate syphilis.[3] In the *Harleian Miscellany* is a play entitled *A Quip for an Upstart Courtier,* 1592, in which one of the characters says to the doctor: "Neither doe I frequent whore-houses to catch the marbles, and so to prove your patient." The term occurs also in Robert Greene's *Theeves falling out, True Men come by their Goods* (1617), a later edition of his *A Disputation between a He-Conycatcher and a She-Conycatcher* (1592). The line reads: "Looke into the Spittles and Hospitalls, there you shall see men diseased of the French Marbles." "The scab" was a very common appellation, often used vituperatively, as in some lines of the Cavalier poet Robert Herrick. The poem alludes to one of his books and is addressed

> To The Sowre Reader
>
> If thou dislik'st the piece thou light'st on first,
> Think that, of all that I have writ, the worst.
> But if thou read'st my booke unto the end
> And still dost this and that verse reprehend,
> O perverse man! If all disgustful be,
> The extreme scabbe take thee and thine, for me.

Again, in Beaumont and Fletcher's *The Sea Voyage:*

[3] The *O.E.D. has* (†6): "pl. a French marbles: syphilis. *Obs.* [? Corruption of F. *morbilles* 'The small pockes' (Cotgr.)]." The term syphilis is derived from a Latin poem *Syphilus sive Morbus gallicus,* composed by Girolamo Fracastoro and published in Verona in 1530. A shepherd, Syphilis, has offended Apollo, who punishes him by afflicting his genitals with this frightful disease. As Sarton has pointed out (*Six Wings: Men of Science in the Renaissance,* p. 209), syphilis is the only disease the name of which has a poetic origin. Incidentally, the poem extols the virtues of the newly discovered "wonder drug" *guaiacum.*

> Is thy skin whole? Art thou not purl'd with scabs?
> No ancient monuments of Madam Venus?

and in Marston's *The Dutch Courtesan:*

> Is a great lord a foole, you must say he is weake. Is a gallant pocky, you must say he has the court-skab.

One of the oldest and oddest terms in the copious terminology of venereal disease is "the Winchester goose." There is no doubt as to its origin. In the early days of London the Bankside was a continuous row of brothels near the river, which were under the jurisdiction of the Bishop of Winchester, and the victim who suffered the usual consequences of a visit to this tainted locality was termed "a Winchester goose."[4] In course of time the name came to be applied to the disease itself, and the allusions to it in the old writers are very frequent. John Taylor, the Water Poet, who was intimately acquainted with all riverside customs and phrases, calls it

> A groyne bumpe, or a goose from Winchester,

and the *Nomenclator of Hadrian Junius,* one of the earliest English dictionaries, published in 1585, defines 'bubo' (p. 439) as "a sore in the grine or yard, which if it come by lecherie, it is called a Winchester goose, or a botch."

What is probably the earliest use of the term appears in the following line from *Resurrection of the Mass,* 1554, attributed to John Bale:

> A Wynchester goose to heale is my gyse. . .[5]

In Ben Jonson's *Underwoods* is this passage:

> And this a sparkle of that fire let loose
> That was rak'd up in the Wincestrian Goose,
> Bred on the Bank in times of popery
> When Venus there maintain'd the mystery.

The name appears also in Webster's *A Cure for a Cuckold,* 1661:

> This Informer . . . had belike some private dealings with her, and there got a Goose.

Shakespeare employs it twice, in *I Henry VI* (I, iii) and again in *Troilus and Cressida* (V, x). In the former, Gloucester applies

[4] The term was sometimes applied also to a prostitute; see *English Gazetteer,* 2d edition (1778), *s. v.* Southwark.

[5] Cited in *The Library,* 1941, 4th ser., 21, 150.

the term to Winchester himself in the course of a quarrel between them.

> Winchester goose, I cry, a rope! a rope!

In the latter the last speech is given to Pandarus, who says:

> Brethren and sisters of the hold-door trade,
> Some two months hence my will shall here be made:
> It should be now, but that my fear is this,
> Some galled goose of Winchester would hiss:

The following elaborate account of the origin of the term "Winchester goose" is given in the *Westward Hoe!* of Dekker and Webster, 1607:

> Boy: Collier, how came the goose to be put upon you, ha?
>
> Justiniano (disguised as a collier): I'll tell thee. The term lying at Winchester, in Henry the Third's days, and many Frenchwomen coming out of the Isle of Wight thither as it hath always been seen (though the Isle of Wight could not of long time neither endure foxes nor lawyers, yet it could brook the more dreadful cockatrices), there were many punks in the town, as you know our term is their term.[6] Your farmer that would spend but threepence on his ordinary, would lavish half a crown on his lechery; and many men, calves as they were, would ride in a farmer's foul boots before breakfast; the commonest sinner had more fluttering about her than a fresh punk hath when she comes to a town of garrison, or to a university. Captains, scholars, serving-men, jurors, clerks, townsmen, and the black-guard[7] used all to one ordinary, and most of them were called to a pitiful reckoning; for before two returns of Michaelmas, surgeons were full of business; the care of most, secrecy, grew as common as lice in Ireland or as scabs in France. One of my tribe, a collier, carried in his cart forty maimed soldiers to Salisbury, looking as pitifully as Dutchmen first made drunk, then carried to beheading; every one that met him cried, 'ware the goose, collier; and from that day to this, there's a record to be seen at Croydon, how that pitiful waftage, which indeed was virtue in the collier, that all that time would carry no coals, laid this imputation on all the posterity. (III, iii)

In an early manuscript entitled *The Pennyless Parliament,* preserved in the *Harleian Miscellany,* it is spoken of as "the pigeon," and the following bit of satirical advice on how best to avoid it is given: "Those who play fast and loose with women's apron-strings may chance make a journey for a Winchester pigeon; for prevention thereof, drink every morning a draught of *noli me tangere,* and by that means thou shalt be sure to escape the physician's purgatory."

[6] The word "term" here refers to the court sessions.

[7] A contemptuous epithet applied to scullions or any of the lowest order of domestics.

There are many allusions in the dramatists and poets to the treatment of syphilis by two methods: the one by sweating in the tub, the other by *guiacum* administered in decoction, the two methods being combined or the latter following the former.

An early representation of the famous tub appears in the works of Ambroise Paré, page 598 of the edition of 1575.[8] It is actually a cask rather than a tub. The patient was seated inside on a perforated stool beneath which hot bricks or stones were placed. Through a small trapdoor in the side of the tub a mixture of vinegar and brandy was thrown upon the heated bricks and the steam was confined by a sheet fastened round the patient's neck. In England the common tub used for salting meat, "powdering" it, as the term then was, seems to have been employed. Humorous allusions to the dual purpose of the tub are frequent. In *Measure for Measure* (III, ii), the clown, speaking of Mistress Overdone, the bawd, says: "Troth, Sir, she hath eaten up all her beef, and she is herself in the tub." Both the tub and the dieting which was a part of the cure are alluded to in *Timon of Athens* (IV, iii):

> Make use of thy salt hours; season the slaves
> For tubs and baths; bring down rose-cheeked youth
> To the tub-fast and the diet.

Sometimes an oven, or a hole in the ground, was used for the sweating, and in every case a strict diet was enforced. Dry food, and, above all, "burnt" or overdone mutton, preferably that cut from the rack or neck, was alone to be had. The quotations which follow will give all this in full. The first is from Beaumont and Fletcher's *The Knight of the Burning Pestle*, 1613, apparently intended partly as a burlesque on the style of Spenser's *Faerie Queene*. A knight and a lady are imprisoned in a cave, where they are tortured by a giant. The knight had carried off his "lady dear" from her friends in Turnbull Street, a locality which, like the Bankside, was notorious for its houses of prostitution. He begins:

> I am an errant-knight that followed arms
> With spear and shield, and in my tender years
> I stricken was with Cupid's fiery shaft,
> And fell in love with this my lady dear,
> And stole her from her friends in Turnbull Street;
> And bore her up and down from town to town,
> Where we did eat and drink and music hear;
> Till at the length of this unhappy town
> We did arrive and coming to this cave,

[8] This is the first edition, published in Paris by Gabriel Buon.

This beast us caught, and put us in a tub
Where we this two months sweat, and should
have done
Another month if you had not reliev'd us.

Woman. This bread and water hath our
diet been,

Together with a rib cut from a neck
Of burned mutton; hard hath been our fare;
Release us from this ugly giant's snare.

Man. This hath been all the food we have
receiv'd;

But only twice a day, for novelty,
He gave a spoonful of this hearty broth
To each of us through this same slender quill.
(Pulls out a syringe)

In the same author's *Honest Man's Fortune,* 1613, there is this reproach to a libertine:

All women that on earth do dwell, thou lovest,
Yet none that understand love thee again,
But those that love the spital. Get thee home,
Poor painted butterfly! Thy summer's past;
Go, sweat, and eat dry mutton. (V, iii)

So of a similar gallant in Middleton's *Michaelmas Term,* 1607:

He'll be laid shortly;
Let him gorge venison for a time, our doctors
Will bring him to dry mutton. (I, i)

and in *Your Five Gallants,* 1608:

He's in his third sweat by this time, sipping of the doctor's bottle, or picking the ninth part of a rack of mutton dry-roasted, with a leash of night-caps on his head like the pope's triple crown, and as many pillows crushed to his back. (I, i)

George Farquhar, the dramatist, in one of his poems speaks somewhat more encouragingly to one who has been in the "powdering tub."

You will revive, the pox expire,
Then rise like phoenix from the fire,
The metal's stronger that's once soldered,
And beef keeps sweeter once 'tis powdered.

There are a number of allusions also to a "Cornelius tub" or a "Cornelius's tub," but how the name came to be applied, or who Cornelius was, is unknown. *Cornelianum Dolium* (1638), a Latin play by Thomas Randolph, deals entirely with the hero's acquaint-

ance with the sweating-tub. The engraved title page depicts him standing in the tub as he bids farewell to three prostitutes who are trying to persuade him to leave it.[9] Sometimes the term is "Cornelius's dry-fat," but a dry-fat, or dry-vat, is an old-fashioned name for a box or cask. One of the earliest mentions of it occurs in Nashe's *The Unfortunate Traveller,* 1594:

> Mother Cornelius tub why it was like hell, he that came into it neuer came out of it.

In Armin's *Nest of Ninnies,* 1608, one says of the students: "And when they should study in private with Diogenes in his cell, they are with Cornelius in his tub." It is natural that the old story of Diogenes and his tub should have presented a target for the gibe of the satirist. In Cotgrave's *English Treasury of Wit and Language,* 1655, there appears this epigram:

> As for Diogenes, that fasted much,
> And took his habitation in a tub,
> To make the world believe he loved a strict
> And severe life, he took the dyet, sit, and in
> That very tub sweat for the French disease,
> And some unlearn'd apothecary since,
> Mistaking's name, call'd it Cornelius tub.

How early the practice of treating syphilis by sweating was introduced can hardly be determined, but Rabelais has a characteristic reference to it (Book II, Chapter 2) which contains also a satisfactory explanation of how the sea was made and how it came to be salt. I quote the translation of Motteux, which in this instance is exact:

> The earth at that time was so exceedingly heated that it fell into an enormous sweat, yea, such a one that made it sweat out the sea, which is therefore salt, because all sweat is salt; and this you cannot but confess to be true if you will taste of your own, or of those that have the pox when they are put into a sweating; it is all one to me.

This was written sometime before 1532.

A fitting conclusion to this brief examination of the subject is the following passage from a poem by Mrs. Aphra Behn (1640-1689) entitled "A letter to a brother of the pen in tribulation . . ." which contains what is perhaps the most complete description of the diet imposed.

[9] For this reference I am indebted to Dr. F. N. L. Poynter, Librarian of the Wellcome Historical Medical Library, London.

Poor Damon! art thou caught? Is't even so?
Art thou become a *Tabernacler* too?
When sure thou dost not mean to preach or pray,
Unless it be the clean contrary way;
This holy time I little thought thy sin
Deserv'd a tub to do its penance in.
O, how you'll for th' Egyptian flesh-pots wish,
When you're half famish'd with your lenten dish,
Your almonds, currents, biscuits, hard and dry,
Food that will soul and body mortify;
Damned penitential drink, that will infuse
Dull principles into thy grateful muse.[10]

[10] By catering to the coarsest taste of the time, the author has acquired a not altogether deserved reputation for immorality. Although the humor in her comedies is habitually gross and the language characterized by licentiousness, her plays show on the whole great vivacity of action and considerable dramatic ingenuity.

Amatus Lusitanus and the Obturator in Cleft Palates

JOSHUA O. LEIBOWITZ*

THIS study is an inquiry into the literature of older case histories. The writer feels strongly that bio-bibliography keeps its position even now as the backbone of historical research. However, it has almost reached the saturation point and should be supplemented by a newer approach to the actual contents of the older medical documents and case histories.

It is purely accidental that the writer chose Amatus Lusitanus whose works and personality have interested him for a long time. Even more accidental has been the choice of the subject, the prosthetic treatment of acquired cleft palate, now obsolete, but a major problem in the days of Amatus, Falloppio, and Fauchard. Some years ago the writer received a letter from George Sarton urging him to prepare a "catalogue raisonné" of all the seven centurias of Amatus. This was a stimulus for choosing some individual case histories for a careful evaluation of their intrinsic nature. The present study has been made possible by the privilege of using the riches of the Yale Historical Medical Library; much more even by the inspiring personality of Dr. Futlon and by the helpfulness of his staff members.

It may be worthwhile to reproduce in translation** the original report by Amatus Lusitanus (1511-68) of his prosthetic treatment in a case of syphilitic destruction of the palate. The case history is fortunately very concise and not obscured by theories nor burdened with lengthy discussions. Thus this report is free from the mannerisms of the Renaissance period, when every medical writer, including Amatus himself, was eager to display his erudition in the classical and medieval sources of medicine. The immediate impulse for writing this paper came from an article in this Journal on the prosthetic therapy of cleft palates,[1] where Amatus' inven-

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** I am indebted to the classical philologist, Dr. E. D. Goldschmidt, Hebrew University Library, Jerusalem, for having read my translation.

1 Baden, Ernest. Prosthetic therapy of congenital and acquired clefts of the palate, *J. Hist. Med.*, 1955, *10*, 290-301.

tion was cursorily mentioned. It seem therefore appropriate to clarify the share of Amatus in this therapy and to supply some information on the nature, chronology, and location of the original text.

The Case History (in Centuria quinta)

The fourteenth curatio treating of a somewhat extraordinary artifice to restore voice which was totally lost as the result of an ulcer of the palate.

A Greek nobleman, boasting of his descent from Greek emperors, developed various ulcers due to Morbus Gallicus of which he was cured by an optimal but strictly constituted diet, by the drinking of a Guaiac decoction for forty days, thereafter by applying wax ointments of mercury on the thighs and arms, and finally by taking again the Guaiac decoction. There remained only one conspicuous ulcer, in the high part of the palate, which did not cicatrize with any medication. In this location, rather, a perpetual foramen persisted; in consequence, this man lost entirely the faculty of speech and voice. Pay attention to the way we met the exigency of such a severe ailment in order to make the man talk adequately. I invented the following extraordinary artifice which made possible a correct and distinct speech, as if he had never had any illness. Such is the nature of this artifice:

I ordered a goldsmith to prepare a golden-headed nail; the head of the nail was round and broad enough to close the total circumference of the foramen, whereas the tip of the nail was narrow and round; in its center an ear, lentil-shaped, was prominent. To the said tip, or spike, of the nail a small sponge was fitted, and this the patient had to introduce at the same time into the foramen where it expanded with moisture and so remained fixed in position. Thereby he was able to speak correctly as if nothing ailed him. Thereafter he took out the instrument twice a day, namely in the evening and in the morning, washed the sponge, squeezed it out with his fingers, and introduced the instrument again, being thus able to talk in a correct and elegant manner as if he had no illness. On removing it he was totally deficient of speach which recovered when he replaced it again. Hence, it is only right to number the palate among the other requirements for speech. By this instrument an uncommon glory in the medical art has been attained. While writing this down here at Ragusa, we have now carried out a similar work on Samuel Erqui, a young Hebrew. Incidentally the nail may be made both of gold and of silver or of lead.

Comment. Destruction of the palate due to syphilis with severe impairment of speech has become extremely rare nowadays. However, in the first half of the sixteenth century, when syphilis spread as an acute epidemic, cleft palate of luetic etiology was a major therapeutic problem. Even in the eighteenth century palatal lesions, not unlike those described by Amatus almost two hundred years before, must have been not uncommon. In his book *De morbis venereis*,[2] a classic in venerology, Jean Astruc refers to

[2] Astruc, Jean. *De morbis venereis libri sex.* Paris, 1736, 600 pp. (see p. 309); English translation by S. Chapman, 2d ed., London, 1770. 490 pp. (see p. 223).

"ulcers of the palate with bone destruction at its roof" (book 4, chapter 3, §3). He mentions there also the disorder of speech—"aphonia." Fauchard[3] devoted 46 pages of his book *Le chirurgien dentiste* to the description of five types of obturators he had invented and depicted. The need to solve this therapeutic problem must have been urgent in his time.

Since surgical correction of a defect in palate involves many difficulties, even in modern times, the prosthetic aid of the Renaissance truly deserved even the slightly overestimated praise of Amatus who called it "an uncommon glory in medical art." Besides, the method described by Amatus remained valid for about two hundred years. It was improved in 1728 by Fauchard,[3] the father of modern dentistry, who inaugurated a fixation of the obturator to a dental prothesis instead of the fixation by a sponge.

As to the systemic treatment of syphilis Amatus' uncritical approach, as well as that of his contemporaries, is obvious when he prescribed an efficient, if not optimal, treatment by mercury along with the rather inefficient guaiac decoction. Mercurial ointment had been established practice since the end of the fifteenth century and supported by the authority of Leoniceno. The exotic drug guaiac had been praised by Ulrich von Hutten.[4] In the dedication, at the end of the volume, to the Archbishop of Mainz Hutten made a rather curious statement on the motives he had had in mind when writing on things pertaining to the treatment of Morbus Gallicus: "And I have written them to your Highness not that I wish you to use them yourself: our savior Christ grant that you never have need to: but that they might be published against the need of all in your court." This shows the free manner of expression and lack of "prudery" in the golden age of the Renaissance.

MEDICO-HISTORICAL REFERENCES TO AMATUS' CASE REPORT

With the advent of reference books in the sixteenth century (Elenchus, Nomenclator, dictionaries) bio-bibliographical notes on Amatus became available by such as Paschalio Gallus (1590), Jöcher (1750), Eloy (1755 and 1778) and many others. All of

[3] Fauchard, Pierre. *Le chirurgien dentiste.* 1st ed. Paris, 1728. Third ed. has been consulted (Paris, 1786, vol. 2); on the obturator see pp. 292-338 and plate 39, p. 320.

[4] Hutten, Ulrich von. De guaiaci medicina et morbo gallico liber unus. Mainz, J. Schöffer, 1519. Translation used: C. W. Mendell, *Arch. Derm. Syph.*, 1931, *23*, 409-28, 681-704, 1045-1063. See also Munger, R. M. Guaiacum, the Holy Wood from the New World. *J. Hist. Med.*, 1949, *4*, 196-229.

them, whether short or expanded, contained largely general information. The particular importance of a special case history was rarely stressed. However, in the Renaissance period the "observatio" or "historia morbi" was greatly stimulated by the desire to see and understand the reality which was described. This has been aptly shown by Pedro Laín Entralgo.[5] In medical historiography appreciation of the factual data contained in the old case histories began only later when a new branch, history of diseases, was cultivated. This led to editions of the classics of medicine (Sudhoff, Sigerist, Major, and others) offering facilities for critical elaboration of the sources.

The first detailed reference to the case history under discussion seems to be that by Max Salomon (1901).[6] His monograph is well organized and pays due attention to the real content of Amatus' case histories, including that on the cleft palate obturator. The next reference followed a few months thereafter. J. Christ,[7] physician and dentist, published in 1901 a detailed paper on the history of palatal defects therapy, stressing the work of Amatus versus Paré, Petronius, and Falloppio. Christ's paper was censured by K. Sudhoff.[8]

Then, in 1907, the most comprehensive book on Amatus up to that time was published by Maximiano Lemos[9] who mentioned the obturator in one word, referring the reader to the original centuria. Hirsch Rudy[10] in an essay on Amatus Lusitanus discussed at some length his description of an obturator. It has been briefly mentioned in the excellent essay on Amatus Lusitanus by Harry Friedenwald,[11] but without indicating the location. It has been further referred to and commented on by José Lopes Dias,[12] an eager Amatus scholar, who also, together with Firmino Crespi, translated three of the seven centurias into Portugese, the first

5 Lain Entralgo, Pedro. *La historia clínica.* Madrid, 1950, 775 pp. (see p. 127 ff.).

6 Salomon, Max. Amatus Lusitanus und seine Zeit. *Z. klin. Med.*, 1900, *41*, 458-95, 1901, *42*, 129-60. In book form: Berlin, Hirschwald 1901. 71 pp. (see p. 66).

7 Christ, J. Geschichtliches zur Behandlung der Gaumendefecte. *Janus*, 1901, *6*, 531-541, 587-591.

8 Sudhoff, Karl. Vom Alter des Gaumenobturators. *Janus*, 1924, *28*, 451-54. See also: Sudhoff, K., *Geschichte der Zahnheilkunde.* 2nd ed., Leipzig 1926, p. 151-53, foot-note. Quotes: Renner, Franz, *Ein Newwohlgegruendet nützliches und haylsames Handtbüchlein*, etc. Nürnberg, Gabriel Heyn, 1557, pp. 86-87.

9 Lemos, Maximiano. *Amato Lusitano a sua vida e a sua obra.* Porto, 1907. 203 pp. (see p. 186).

10 Rudy, Hirsch. Amatus Lusitanus. *Archeion*, 1931, *13*, 424-39. See pp. 432-3.

11 Friedenwald, Harry. *Jews and medicine.* Baltimore, 1944. 2 vols., 817 pp. (see p. 357).

12 Dias, José Lopes. João Roderigues de Castelo Branco (Amato Lusitano) e a critica histórica. *Rev. port. Med.*, Aug.-Sept. 1955 (and previous publications).

rendering of any of Amatus' books into a modern language. The last author to be mentioned is Ernest Baden[1] who refers to B. W. Weinberger's[13] book on the history of dentistry as his source in regard to Amatus' obturator, the main objective of his paper being the later development of prosthetic treatment from the eighteenth century onwards.

AMATUS' SHARE IN THE DISCOVERY

It is not easy to find one's way in the vast surgical literature of the sixteenth century in an attempt to discover references to the prosthetic therapy of cleft palate previous to that described by Amatus in 1560. The fine treatise (1556) by the ingenious and bold surgical practitioner Pierre Franco[14] has a chapter (pp. 74-7 of the re-impression-edition) on cleft lips. But only in the enlarged edition of 1561 is there some reference to cleft palate and this without indication of the technique. Jacques Houiller's chapter on the "materia chirurgica" in the first edition (Paris, 1543, the sixth book in Joannes Tagault's *De chirurgia),* does not contain anything about the obturator; only in his posthumous works (Houiller died in 1562) are his attempt at palatal suture and the occlusion by a sponge mentioned. The previously quoted[1] Alexander Petronius did not publish his observation until 1566-67. It may be added that the great Gabriele Falloppio[15] also described an obturator even underlining at some length his wide experience with this treatment ("ego multos sanavi"). His observations were published in 1564.

It remains to comment on Paré's[16] famous description of the obturator, which is much the same as Amatus' and which has the advantage of being illustrated. The illustrations have been recently reproduced by Gibson[17] in a well-documented paper. Paré's observation had been first published in 1561 and were repeatedly inserted in his *Oeuvres.* The date of publication is slightly after that of Amatus[18] in 1560. The priority question has no impor-

13 Weinberger, B. W. *An introduction to the history of dentistry.* St. Louis, 1948. 2 vols. (see vol I, p. 248).

14 Franco, Pierre. Petit traité sur les hernies. 1st ed. Lyons, 1556. Réimpression identique, Paris, 1884, 92 pp.; *Traité des hernies.* Lyons, 1561, 554 pp.

15 Falloppio, Gabriele. *De morbo Gallico.* Padua, 1564; chapter 97.

16 Paré, Ambroise. *La méthode curative des playes et fractures de la teste humaine.* Paris 1561. (ff. LXXXVI*b*-LXXXVII*a*: Du palais; ff. CCLXIa-CCLXIIa: Des playes et fractures des os du palais).

17 Gibson, Thomas. The prostheses of Ambroise Paré. *Brit. J. plast. Surg.,* 1955, *8,* 3-8 (see p. 5).

18 Amatus Lusitanus. *Curationum medicinalium centuria quinta.* Venice 1560, curatio 14.

tance in the present case history. Many Renaissance physicians aimed at a prosthetic aid quite independently. It is purely a bibliographical statement of a chronologically first mention in the medical literature, so far as this literature is generally known and available. Sudhoff, however, felt that priority should be credited

Curationum Medicinalium
AMATI LVSITANI
MEDICI PHYSICI
PRAESTANTISSIMI
CENTVRIAE DVAE,
Quinta videlicet ac Sexta,

In quarum vltima Curatione continetur
Colloquium eruditiſsimum, in quo doctiſsime
diſputatur, & agitur de curandis
capitis vulneribus:

Cum Indice omnium curationum quæ ipſis Centurijs conginentur.
omnia nunc primum in lucem edita.

Cum Priuilegio Illuſtriſs. Senatus Veneti.

VIN CENT

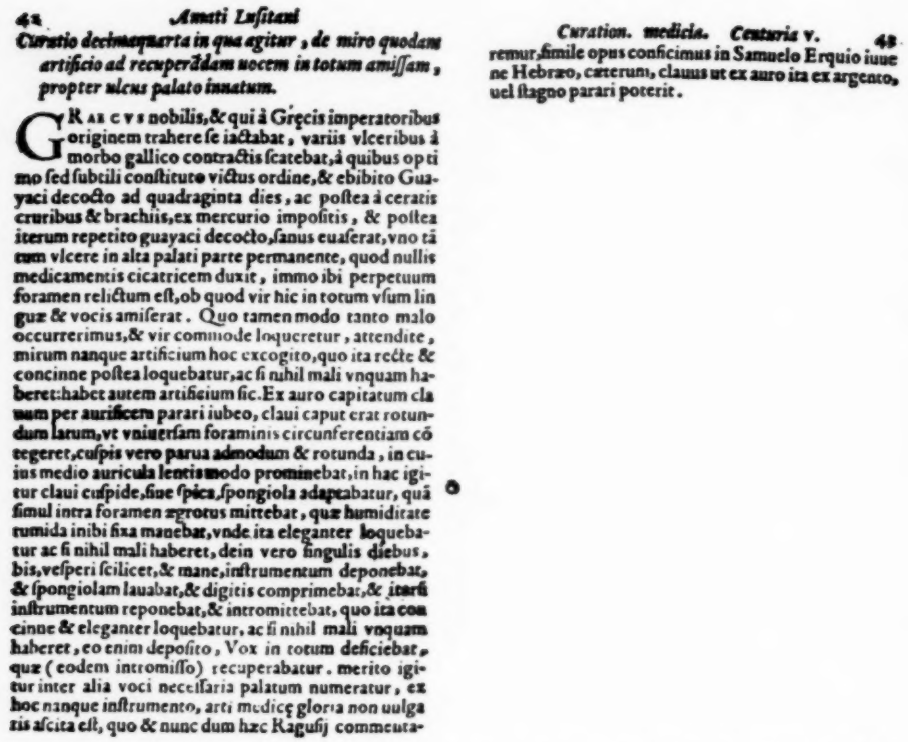
VENETIIS,
Ex Officina Valgriſiana,
M D L X.

FIG. 1. Title-page of the first edition of the fifth centuria of Amatus Lusitanus, Venice, 1560. (Courtesy of the Harry Friedenwald Collection now in the Hebrew University Library, Jerusualem.)

to another, less well known, author. Here Sudhoff quotes a Nürnberg barber-surgeon, Franz Renner,[8] who described an obturator made of several layers of leather, but rejected metal obturators since they might get loose and lead to suffocation of the patient.

As to Amatus, we know not only the date of the first edition of the fifth centuria (1560, apud Valgrisium, Venice), but also pretty well when he wrote this opus. We derive this information from the dedication to Joseph Nassi, Duke of Naxos which does not appear in the *editio princeps* of centuria V but in the Lyons

edition of 1580. We are told that Amatus suffered persecution under Pope Paul IV; he fled from Ancona and lost all his fortune, his library, and the manuscript of his centuria V. After considerable effort he regained the manuscript through the intervention of a certain Hodara, merchant of Salonica. He finished the cen-



42 *Amati Lusitani*

Curatio decimaquarta in qua agitur, de miro quodam artificio ad recuperãdam uocem in totum amissam, propter ulcus palato innatum.

GRAECVS nobilis, & qui à Græcis imperatoribus originem trahere se iactabat, variis vlceribus à morbo gallico contractis scatebat, à quibus optimo sed subtili constituto victus ordine, & ebibito Guayaci decocto ad quadraginta dies, ac postea à ceratis cruribus & brachiis, ex mercurio impositis, & postea iterum repetito guayaci decocto, sanus euaserat, vno tãtum vlcere in alta palati parte permanente, quod nullis medicamentis cicatricem duxit, immo ibi perpetuum foramen relictum est, ob quod vir hic in totum vsum linguæ & vocis amiserat. Quo tamen modo tanto malo occurrerimus, & vir commode loquetur, attendite, mirum nanque artificium hoc excogito, quo ita rectè & concinne postea loquebatur, ac si nihil mali vnquam habuerit: habet autem artificium sic. Ex auro capitatum clauum per aurificem parari iubeo, claui caput erat rotundum latum, vt vniuersam foraminis circunferentiam cõtegeret, cuspis vero parua admodum & rotunda, in cuius medio auricula lentis modo prominebat, in hac igitur claui cuspide, siue spica, spongiola adaptabatur, quã simul intra foramen ægrotus mittebat, quæ humiditate tumida inibi fixa manebat, vnde ita eleganter loquebatur ac si nihil mali haberet, dein vero singulis diebus, bis, vesperi scilicet, & mane, instrumentum deponebat, & spongiolam lauabat, & digitis comprimebat, & iterũ instrumentum reponebat, & intromittebat, quo ita concinne & eleganter loquebatur, ac si nihil mali vnquam haberet, eo enim deposito, Vox in totum deficiebat, quæ (eodem intromisso) recuperabatur. merito igitur inter alia voci necessaria palatum numeratur, ex hoc nanque instrumento, arti medicę gloria non vulgaris ascita est, quo & nunc dum hæc Ragusij commenta-

Curation. medicin. *Centuria* v. 43

remur, simile opus conficimus in Samuelo Erquio iuuene Hebræo, cæterum, clauus ut ex auro ita ex argento, uel stagno parari poterit.

FIG. 2. The fourteenth "curatio," in the first edition (Venice, 1560). (Courtesy of the Harry Friedenwald Collection now in the Hebrew University Library, Jerusalem.)

turia at Pesaro (1555-56) and revised it in Ragusa (1556-58)[19] where he had more leisure for literary occupation ("magno otio"). The loss of the manuscript and the delay in its eventual recovery may explain the fact that it closes with the date 5320 "a creatione mundi" (1560 A.D.) while the sixth closes at an earlier date (1559 A.D.) The case history itself, being the 14th of the one hundred, must have been written even some time before Amatus' sojourn at Pesaro, i.e., before 1555.

19 "Quinta Centuria Curationum mearum fere ad umbilicum deducta . . . partureram" . . . "Ille vero interveniente Hodara Thessalonicensi mercatore . . . ad me Centuriam Quintam remittit: quam postea Pisauris absolvi, et Ragusii magno otio revisi".

Though some of his contemporaries, and especially Paré, have also described the obturator, Amatus' invention seems to have been quite independent and to precede their publications. In all of his writings Amatus strove for elegant style and faultless construction. Notwithstanding, in the case history under discussion he did not escape a "fault" of having thrice repeated the statement that after the application of the instrument "the patient was able to speak correctly as if nothing ailed him." This may have been due to the emotion of the inventor who was himself astonished at attaining the therapeutic goal. Even the designation "extraordinary artifice" in the heading may show the author's naïve joy at the invention.

Surgical and Anatomical Versus Medical Items in the Older Literature

By perusing the case history of the cleft palate we gain the impression that descriptions pertaining to surgery (including prosthetics) and also to anatomy are, in the older sources, more accurate and valid than those concerning internal medicine. This may seem paradoxical since surgical technique was so backward in older times. The treatment of luxation in the Hippocratic writings has a more "modern" appeal than the medical cases. The relatively short "particula" on surgery in Maimonides' "Aphorismi"[20] is more up to date than his discussion of medical problems. Maimonides is very precise in the revival of the ligature, in radical extirpation of malignant growth, and in a very original and thoughtful outline of the surgical indication.[21] The same seems to be true with regard to Amatus whose main contributions do not belong to internal medicine proper. A few of them may be mentioned. In a case of empyema Amatus urged that the incision be made low in the chest in order to obtain good drainage (cent. I, curatio 61) while the custom was to make the incision high up in the chest. He demonstrated in 1547 that the low incision does not cause injury to the diaphragm; incidentally, this experimental perforation on a cadaver was made by Vesalius' brother, Franciscus, then Amatus' pupil at Ferrara. The case history published in 1551 tells that the incision in a woman suffering se-

[20] First Latin edition: Aphorismi . . . Raby Moyses secundum doctrinam galieni . . . Bologna, 1489; see particula 15.

[21] Leibowitz, J. O. Maïmonide sur la chirurgie. *Rev. Hist.*, Méd. Hébr., July, 1954.

verely from empyema was performed between the third and fourth rib, counting from below, and the patient recovered.

In the same year 1551 Amatus published the results of his dissections and experiments on the valves of the veins (cent. I, curatio 52, scholia) but did not realize their physiological significance and had no notion that the blood circulates. The investigation was made in an attempt to solve a now irrelevant question concerning the side to be chosen for venesection in pleurisy. Amatus based his account of the valve in the azygos vein on twelve dissections performed in 1547 in Ferrara. He "had explored its function in a beautiful series of experiments" (Cushing and Streeter).[22] He observes (translation by E. T. Withington): "If you put a tube in the upper part of the vena cava and blow downwards, both the vena cava and the azygos will be inflated; but if you blow into the lower part of the vena azygos the air will not pass into the cava because of a valve and operculum which exists at their junction." Canano, the "admirandus anatomicus" in Amatus' words, is commonly related as discoverer of valves in the veins (Streeter, *loc. cit.*, p. 29). However, he did not publish the discovery, and only a reference to it is found in Vesalius' account[23] of Canano's personal communication. This is not the place to continue the long discussion concerning the question of priority.[24] Suffice it to mention that Amatus' is the first printed report of human dissection on valves in the lumen of veins. They were described afterwards by Sylvius in his *Isagoge* (1555), again by Salomon Alberti (1585)[25] with the first illustration, but neglected by Vesalius and Falloppio, then forgotten, and finally rediscovered by Fabricius ab Aquapendente in 1578[26] and published in 1603, however, also without knowledge of their true function and of the direction of the blood stream. Only Harvey appreciated correctly their function and he made them a starting point for his system

22 Canano, Joannes Baptista. *Musculorum humani corporis picturata dissectio (Ferrara 1541?).* Facsimile edition, annotated by Harvey Cushing and Edward C. Streeter. Florence, R. Lier, 1925. See p. 34.

23 Vesalius, Andreas. *Anatomicarum Gabrielis Falloppii observatiorum examen.* Venice, 1564 (written in 1561); see p. 83.

24 Franklin, K. J. Valves in veins: an historical survey. *Proc. Roy. Soc. Med.*, 1927, *21*, Sect. Hist. Med., 1-33; see p. 4. *A monograph on veins.* Springfield, Ill., 1937. See p. 11, footnote. Fabricius, Hieronymus. *De venarum ostiolis, 1603*, ed. K. J. Franklin. Springfield, Ill., 1933; see pp. 20-22.

25 Alberti, Salomon. *Tres orationes.* Nürnberg, 1585. See: De valvulis membraneis quorundam vasorum, et inprimis earum cohorte, quae in interna capacitate venarum brachiorum et crurum fesé nobis in cadavere anno 79 obtulit, hactenus incognita. (15 pages at the end of the volume, till the last leaf); no pagination; see p. 3-4 of the opuscule, Nürnberg, 1585.

26 First seen in 1574 (*De venarum ostiolis*, Franklin's translation, p. 47); first demonstrated to students, 1578, according to Alberti.

of blood circulation, as he himself said later when questioned by Robert Boyle.

One more case which pertains to urological disorders may be quoted. The 19th curatio of the fourth centuria contains an elaborate report of the diagnosis and treatment of strictures of the uretha. Twenty bougies, "cereae candelae" (wax), and three to four "virgulae plumbeae" (lead) were employed for the treatment. An interesting feature is the use of an in-dwelling catheter in retention of urine. Destruction of granular tissue by auripigment attached to lead bougies has been also described.

Anatomical, surgical, and urological items in Amatus' writings appear to have been more clearly delineated than purely medical cases, even though not always correctly interpreted, as in the case of the valves in veins. The same seems to be a rather general rule in older medical case histories. It would be worth while to supplement the great work of Gurlt *(Geschichte der Chirurgie,* 3 vols., Berlin, 1892) by careful studies of the individual reports. The purely medical cases in Amatus are numerous and rewarding, too, but they lack the support of physiology not yet developed in his days. However, some of the observations are remarkable: the seemingly first description of purpura not associated with fever (cent. III, curatio 70); treatment of peptic ulcer without knowledge of its pathology;[27] and two cases of diabetes.[28]

World Politics in the Fifth Centuria

The author sometimes liked to add to the last case of his centurias a short reference to political events occurring at the time of his writing the last page (see centurias IV, V, and VI). These references are not typographically detached from the medical reports.

The fifth centuria concludes with the following words (translated from Latin): "And here is the end of this, the fifth hundred of our cases which we have completed at Pesaro: by that time when the Prince Ferdinandus Alba, hostile to the Teatine Roman Pontifex, under the auspices of King Philip, was about to make war upon the Romans." The Duke of Alva or Alba (1508-83) is called here "regulus" which means a petty king, prince, chieftain, lord. It may be that "regulus" was chosen in some lack of respect for

[27] Leibowitz, J. O. A probable case of peptic ulcer as described by Amatus Lusitanus. *Bull. Hist. Med.*, 1953, *27*, 212-16.

[28] Seide, Jacob. The two diabetics of Amatus Lusitanus. *Impr. med.*, 1955, *19*, 670-74.

the commander-in-chief of the Spanish forces in Italy. The Pontifex is Paul IV, Pope from 1555 to 1559, who with his defects of temper *(Brit. Encycl.)* caused a war to be waged against him by the most Catholic ruler, Philip II. The name Teatine is derived from the ancient Teate Marrucinorum, now Chiefi, a city of the Abruzzi, Italy. The order of the Teatines, founded in 1524, takes its name from the city. So the turbulent times along with the military and political events have been reflected in a purely medical Renaissance treatise.

"CENTURIA"—A NAME AND AN ENTITY

The name "Centuria" was chosen by Amatus to designate a collection of one hundred case histories. The present writer tried for years in vain to find out who had coined this name and it appears that no medical books with this heading are to be found prior to Amatus' centuria I in 1551. Nor do the dictionaries of classic or medieval Latin give any indication as to the use of this word as a book title. However, the number "hundred" does appear in some titles, for instance, *Les cent nouvelles* (stories) (Paris 1480), by the publisher Antoine Verard. Among the nonmedical books bearing the name centuria there exist *Centuriarores magdeburgici* (an ecclesiastic history) in centuriae 1-13 (Basel, Oporinus, 1559-74) ; but here the name refers to division in parts corresponding to centuries A.D. Further there is *Les prophéties de Michel Nostradamus* (Lyon, 1555) divided in "centuries," each of them containing 100 strophes of poetically conceived prophecies based on astrology.

After 1551 a great number of medical centurias were published, as a perusal of Antonius van der Linden reveals. One of the first to be published was by Giovanni Battista Monte (Montanus) : *Consultationum medicinalium Centuria prima* (Venetiis, in officina Erasmiana, apud V. Valgrisium, 1554). The well-known Fabricius Hildanus published *Observationum et curationum chirurgicarum centuriae VI,* the first part at Basel 1606, the last one at London 1641. And so did many others after Amatus.

Some comment may also be made on the centurias as a literary species. For about one hundred and fifty years a great output of case history collections came from the newly established printing presses. Arbitrarily the beginning of this output may be marked by Antonio Benivieni, *De abditis nonnullis a mirandis morborum causis* (Florence, 1506). The titles vary slightly from *consilia*

(Fernel, 1582) through *consultationes* (Monte, 1586) to *observationes* (F. Platter, 1614). Amatus with his centuriae (1551-66) stands somewhere in between. For details, the outstanding and comprehensive book *La Historia clínica* by Pedro Laín Entralgo[5] may be used. Considering the "centuria" as a literary entity, in the broader frame of the case histories movement, a newer approach to reality, so characteristic of the Renaissance, is obvious. Biographical details and the course of disease (failures and death are freely mentioned) are given, autopsies (e.g. V. 88) and typical morbid entities are described along with individual features of the cases. The relatively short "curationes" were highly readable and they contrasted favorably with the huge medieval compilations as represented chiefly by Avicenna's Canon. The new approach is brought forth along with the old heritage of medicine. The centuriae of Amatus, not yet sufficiently known, are of no small importance for medico-historical research.

Biagio Miraglia and the Development of Psychiatry in Naples in the Eighteenth and Nineteenth Centuries

GEORGE MORA*

THE purpose of the present study is to illustrate a relatively unknown but brilliant period of development of psychiatry in southern Italy in the nineteenth century. More specifically, this period was characterized by the establishment of the mental hospital of Aversa, near Naples, at the time of the French government in southern Italy.

Despite the alternating political vicissitudes which disturbed that country for several decades, Aversa's mental hospital reached its highest development during this time. This was essentially due to the humanitarian approach of various superintendents of the hospital, to their creative energy and sympathetic attitude towards both their co-workers and the mental patients, and to the general atmosphere of mutual understanding and confidence that they were able to create in the hospital. A blend of the humanitarian and scientific approach was present in all of them, though in no one was this trait as evident as in Biagio Miraglia whose work will be illustrated in detail in this paper.**

However, only if placed in a larger cultural and political frame of reference can the value of such an important period in the history of psychiatry be fully understood. Such an approach would perhaps also contribute to a more objective evaluation of the culture of southern Italy. Many critics who have recently come in contact with this region have been biased by observations of its poverty, its superstitions, and its lack of initiative. A judgment based on these limited aspects is not complete unless it is accompanied by an understanding and recognition of the cultural motives at the basis of the tradition of southern Italy, from Pythagoras and his "Italic school" of philosophy, to Alcmeon, the great biologist from Croton, to the religious and cultural mission of Montecassino and of the medical school of Salerno in the Middle

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** The author is grateful to Dr. Biagio Miraglia, Jr., of Naples, grandson of Biagio Miraglia, who kindly provided some of the documents used in this study.

Ages, to the Renaissance of Telesio, Bruno, and Campanella, and finally to the modern liberalism which represents in Europe even today a cultural as well as a political force.

The origin of the institution which later became the mental hospital of Aversa can be traced back as far as 1269. In that year the king, Charles d'Anjou, designated a house as a hospice for patients affected by leprosy, the "Hospitium leprosorum S. Mariae Magdalenae." This institution was transformed into a convent in 1420 and maintained this status for about four centuries.

During all this time, as is well known, mental patients received almost no care, and southern Italy was no exception to the rule. Even the best institutions were organized on a very primitive basis and lacked many of the prerequisites which today would be considered essential everywhere. The opinion of visitors and travellers of the time is almost unanimous on this point.

In Naples mental patients occupied a section of the big hospital "Casa Santa degli Incurabili" (Holy Home for Incurables), an institution opened in 1521 for two thousand patients. The patients were divided into two groups, male and female, and grossly classified as manic, melancholic, and "frenetic," each group under the control of special supervisors. Physical punishments were not infrequent, as is attested by the book of Michele Visone, one of the superintendents of the hospital;[1] furthermore, as was the custom of the time, the immediate care of the patients was confided to men previously condemned and pardoned and to women of loose behavior.[2] It is clear that such an arrangement was not too satisfactory; but so it remained even later when the patients were transferred to an old convent of Franciscan monks near Aversa. This system was only an expression of the decadence of the political institutions and an example of the feudal type of society which constituted the kingdom of Naples, governed from the fifteenth century by the Bourbon dynasty, of Spanish origin.

Even in such times, however, the ideas of progress and of optimism in human society, stimulated by the Enlightenment all over Europe, spread also—to a certain extent—over the kingdom of Naples. It was around that time, for instance, that Domenico Cotugno first described in detail the cerebrospinal fluid and the

1 Visone, Michele. *Util uso delle battiture in medicina.* Venice, 1741. It seems, however, that the method used was to pat the abdomen, as a physio-therapeutic measure rather than as punishment.

2 On the conditions of mental hospitals of that time, see Zilboorg, G., *A history of medical psychology.* New York, Norton, 1941, pp. 312-13.

vestibular aqueduct of the ear, and Michele Troia described the connective fibres present in the regeneration of the bones. Perhaps more significant as an expression of the Enlightenment was the establishment in 1754 of the first European chair of political economy, conferred on Antonio Genovesi in Naples.[3] This was one of the measures taken to reform the University of Naples, which, founded in 1224 by Frederick II as a "Studium Generale," had gone through a period of decadence in the seventeenth century. The significance of Genovesi's teaching soon had repercussions in other countries of Europe.

The mental hospital of Naples also tried to raise its standards through the co-operation of capable men. Antonio Sementini (1743-1814), who was director of the mental hospital of Naples around the end of the eighteenth century, considered the influence of the environment on mental diseases, described the cyclic forms of psychopathology, distinguished between hysteria, catalepsy, and epilepsy, and introduced in the institutions some reforms which he had already suggested in his first book in 1764, published at the age of twenty-one.[4]

Such was more or less the situation at the end of the eighteenth century. No institution, however great its resistance, could escape the impact of the political events in the years after the French Revolution. Following a war between the French and the Bourbons, successfully terminated by France, Joachim Murat was elected king of Naples. Though notoriously temperamental and unstable, he had the ability to surround himself with intelligent and liberal men, like Vincenzo Cuoco, educator and historian, and Giuseppe Zurlo, eminent administrator and economist, whose reforms were highly praised by later historians. Outstanding among these reforms were the fight against outlaws, the introduction of the Napoleonic code into legislation, a vast program of public works and the improvement of the educational system. A middle class began to rise and become powerful, and its political aims were to accomplish the independence and the unity of Italy.

Around the end of the so-called "decennio murattoriano" (namely, the decade of Murat's government, between 1805 and

[3] Antonio Genovesi was also the first university professor in Italy to use Italian instead of Latin in his lectures.

[4] Sementini, Antonio. *Breve dilucidazione sulla natura e varietà della pazzia.* Naples, 1764. On Sementini and on the mental hospital at that time, see Romano, Anacleto. La seconda fase del pensiero psichiatrico nel secolo XVIII a Napoli. *Gli incurabili* (Naples), 1902, *17*, 347-71. See also: Chiaverini, Luigi. *Elogio istorico di Antonio Sementini,* Napoli, 1829.

1815) attention was also directed to mentally sick patients. Following a special act, called "decreto murattoriano" (Murat's act),[5] the patients were transferred to the old convent of S. Mary Magdalen. The convent was established as a mental hospital on 5 May 1813, with the name of "Regie Case dei Matti" (Royal Home for the Insane) and was put under the direction of Giovanni Maria Linguiti (1773-1825), a former clergyman of the Congregation of the Servants of Mary, author of a study on mental diseases,[6] "homme d'un zèle et d'une science admirable," to repeat Morel's words.[7] Linguiti abolished the restraining and punitive methods still in use and instituted scientific and humane systems in dealing with patients, centered especially around discipline and work. Among other things, electrotherapy—at that time largely employed in Naples—was introduced by Benedetto Vulpes, apparently with good results.[8]

Because of the success obtained from these methods, the hospital was soon recognized as one of the best of that time, as many visitors and psychiatrists reported. True, some of the visitors maintained a rather critical judgment. Gualandi, for instance, gave a harsh judgment of it.[9] J. P. Frank, one of the founders of modern public health, who also visited it around that time and who was familiar with a large number of hospitals in all Europe, remarked that the rooms were small and dark and that primitive systems of treatment were still in use.[10] However, he also noted, as Guislain did later,[11] that the bars at the windows were disguised as floral decorations to be less disturbing to the patients.[12] Other favorable descriptions were left by the psychiatrist Esquirol[13] and by the embryologist Valentin.[14] The latter, after repeating some of the criticisms expressed by Frank, reported favourably on the improvements and especially on the "moral treatment" instituted by Linguiti.

5 Decreti originali di G. Napoleone Murat, in Arch. di Stato, Uff. Diplom. e Polit., Naples, vol. 63, p. 65.

6 Linguiti, G. M. *Ricerche sopra le alienazioni della mente umana.* Naples, 1812.

7 Morel, B. Pathologie mentale en Italie. *Ann. méd.-psychol.*, 1864, 7, 74.

8 Romano, Anacleto. L'elettroterapia e l'elettrobiologia nel secolo XVIII a Napoli. *Giorn. Elettr. Med.*, 1901, 2, 251-69.

9 Gualandi, Domenico. *Osservazioni sopra il celebre stabilimento di Aversa.* Bologna, 1823.

10 Frank, J. P. *Medizinische Polizei.* Leipzig, 1827, Suppl. vol. III, p. 71.

11 Guislain, Joseph. *Lettres médicales sur l'Italie.* Ghent, 1840, p. 186.

12 Frank, J. P., *op. cit.*, p. 164.

13 Esquirol, E. D., Note sur les aliénations comparés dans le royaume de Naples et les hôpitaux de Paris. *Acad. de méd.*, Sept. 5, 1826.

14 Valentin, G. G. *Voyage médical en Italie.* 2d ed. Paris, 1826, pp. 60-4.

Aversa's hospital was considered by many as a model to be copied for other similar institutions. The Duke of Modena, Francis IV d'Este, for instance, sent Dr. Galloni to Aversa to be trained by Linguiti.[15] For the same purpose the Duchess of Parma sent Dr. Buccelli and Dr. Remolini, and the King of Prussia, Dr. Adersbarch. The hospital itself was visited by a number of monarchs, such as the Emperor and the Empress of Austria, the King of Bavaria, and the Archduke of Saxony.[16]

Brierre de Boismont, the well-known French psychiatrist of the past century, also wrote a description of Aversa's hospital during his two visits to Italian mental institutions in 1822 and 1830.[17] In spite of the general tone of criticism throughout the article—which he maintained in later studies, prompting a famous polemic answer by the Italian psychiatrist Livi in 1864[18]—he described the rooms as well ventilated, the baths normal, the dining rooms adequate, the food good. He criticized the fact that mental patients were exposed to the view of outsiders, and that mechanical restrictions were used. He shared Vulpes' idea that at times a dark room was very soothing for the patient. He seemed to have been especially impressed during his visit by the regularity of the different daily activities in the hospital favourably affecting the patients. Two of his observations are of particular interest for us: he mentioned that Vulpes wanted to distribute a small weekly salary to the patients in order to encourage them to work, and he reported an episode of two patients playing music, one a piano and the other a guitar, stating that the music was fine, in spite of their severe mental condition.

All this gives an idea of the progressive attitude present in Aversa at that point, which may have justified the impression of some people—reported by the French psychiatrist—that Aversa was "the first institution in Europe."[19] Even if this statement was, in Brierre de Boismont's view, markedly exaggerated, it reflected a definite attempt toward improvement on the part of the hospital. This impression was generally shared by several well-known psy-

15 As the Duke's order says, Galloni's duty was to visit some mental hospitals, but "specialmente quello che la sapienza del Linguiti rendeva celebre e fiorentissimo ad Aversa, nel regno di Napoli, per ivi studiarvi, nelle sue varie forme, la pazzia e prendere personalmente cognizione dei metodi di cura colà praticati per la guarigione dei pazzi".

16 See: Valentin, G. G., *op. cit.*, p. 63.

17 Brierre de Boismont A., Des établissements d'aliénés en Italie. *J. Compl. Sc. Méd.*, 1830, *43*, 225-49; *44*, 162-82.

18 Livi, C., Pinel o Chiarugi? Lettera a Brierre de Boismont. *La Nazione,* (Florence newspaper) Sept. 18, 19, 20, 1864.

19 Brierre de Boismont, *op. cit.*, p. 173.

chiatrists who visited it in those years, particularly Guislain, Desmaison, Morel, and Motet.[20]

Of these descriptions, two are especially significant. Joseph Guislain, the famous Belgian psychiatrist, began his description with the statement that the mental hospital of Aversa "has acquired a European reputation."[21] He then described the characteristics of the buildings, remarking that "everywhere the patients are the object of assiduous care and of admirable solicitude," and that "everywhere there is a marked cleanliness and even a certain luxury in the furniture."[22] He then admired the dining room and the kitchen and the different ways in which the patients were kept occupied. He concluded the description with the words: "I consider the early attempts at improvement in Aversa the point of departure for all the improvements later accomplished in the different Italian institutions."[23]

Morel's description of his visit of 1845 is perhaps the most important for its accuracy.[24] The mental hospital was composed of four separated buildings: the old building, the one for the convalescents, the one for "incurables," and the last one for women. Of the 700 patients, 500 were men and the rest women. The annual number of admissions was 190, out of 6,105,000, the total population of the kingdom of Naples, or somewhat more than one per 32,000 inhabitants. The number of the patients who recovered, as reported by the hospital, was considerable, though still less than the number of deaths: of 5,906 patients hospitalized between 1813 and 1840, 2,135 recovered, 780 were improved, and 2,244 died. Epidemics of cholera, frequent at that time, explain in part the high death rate.

Other details of Morel's description are of greater interest for us, especially as they support some of the statements cited from Brierre de Boismont's description. Occupational therapy was emphasized to a great extent: there were for the patients a library, a print shop, and a number of other occupations utilizing machines. "The patients participate in all the industries," wrote Morel.[25] And, on the same page: "Dans ce délicieux pays, où la douceur de la température excuse jusqu'à un certain point la ten-

[20] Billod, E., *Les aliénés en Italie*. Paris, 1884, p. 299.
[21] Guislain, J., *op. cit.*, p. 178.
[22] Guislain, J., *op. cit.*, p. 179.
[23] Guislain, J., *op. cit.*, p. 181.
[24] Morel, B., *op. cit.*, p. 45-83.
[25] Morel, B., *op. cit.*, p. 78.

dance au 'far niente,' on ne peut qu'admirer l'activité et la régularité avec laquelle le travail s'exécute dans l'établissement."[26] In Morel's words all this was to the credit of B. Vulpes, superintendent, and of G. Simoneschi, medical director, "hommes de mérite, et très bien sécondés par le médecins assistants, parmi lesquels je citerai M. le docteur Miraglia."[27]

Giuseppe Simoneschi directed the hospital from 1831 to 1856. He was described as a good organiser, who put a great emphasis on keeping patients occupied, and introduced work at looms, in dyeing, and on the land.[28] He was assisted in these projects by another physician, Luigi Ferrarese (1795-1855), who abolished some of the old methods of treatment such as sudden and frightening baths and was the author of some books on psychiatry.[29] Unfortunately, he had to retire at an early age because he was suspected of having too liberal ideas.

At the time of Morel's visit to Italy Biagio Miraglia was only 31 years old. He was born on 21 August 1814 in Cosenza, the main city of Calabria. Very little is known of his early life except that he was the son of a judge, that he moved several times to various towns, and, more important, that he had a passionate concern for the political freedom of his country and an artistic inclination towards writing poetry and tragedies.

In 1815 Murat had been executed in the well-known episode of Pizzo Calabro, and the Bourbons had returned to Naples. This meant in general a return from the more progressive attitude of the French government to a decadent régime of obscurantism. The ten years of French influence could not, however, have passed without leaving their trace on the country, especially in the light of the general movement toward political freedom present in all Europe. In 1820, only five years after the European Congress of 1815 in Vienna and after the return of the Bourbons to Naples, General Pope forced King Ferdinand to sign a constitution. But this was only a temporary success: a year later the constitution was abrogated and the régime of oppression re-instituted. This situation did not change substantially, in spite of the hopes that the new king, Ferdinand II, aroused in the minds of the liberals. Am-

[26] Morel, B., *op. cit.*, p. 75.

[27] Morel, B., *op. cit.*, p. 75.

[28] Miraglia, B. *Biografia di Giuseppe Simoneschi.* Naples, 1856.

[29] Ferrarese, L. *Delle malattie della mente.* 2 vols. Naples, 1832; *id., Della monomania suicida,* Napoli, 1835.

bitious as well as unreliable, Ferdinand II soon revealed himself to be quite different from the general expectation. He surrounded himself with mediocrities and behaved in such a way as to gain the title of "re lazzarone."[30] He was the king who in 1844 executed in cold blood the Bandiera brothers' expedition to overthrow the government, a fact which aroused indignation in all parts of Europe, and especially in England.

It was during these years that Miraglia grew up. Coming from a cultivated family of the newly established bourgeoisie, he was particularly sensitive to the ideals of political freedom which the secret movement of the "Carbonari,"[31] under the guidance of Mazzini, was agitating all over Italy. At the age of 18, he wrote a tragedy, "Coriolano," about the same historical personage made famous by the genius of Shakespeare. He maintained this interest in poetry for years, composing four other tragedies, all on historical subjects. One of them, "Bianca Copello," even received a literary prize.[32]

Miraglia's main interest, however, was medicine. While he was a student in Naples, the medical school of that university was winning increasing prestige. This period, initiated by the abovementioned Cotugno and Domenico Cirillo, was continued by such teachers as Lanza, Lucarelli, and others. In spite of the big dispute between Brownian and anti-Brownian theories, clinical medicine was firmly grounded on the Hippocratic tradition, as one may deduce from the famous motto of Cotugno, "Medicine does not have masters: it has only one teacher, Nature."

After completion of his studies in 1837, Miraglia, pressed by financial difficulties, started to practise in a small town. Four years later, however, he came back to Naples. It was about this time that his interest in phrenology began, possibly through the influence of the French literature.[33] It is also possible that Italian

30 "Lazzarone" is a contemptuous designation used for people of the lowest class of Naples.

31 "Carbonari" was the name given to the members of a secret political society aiming at the unity of Italy as a free and independent country.

32 On Miraglia's literary production, see Cipolletta, B. *Storia dei medici poeti italiani dalle origini ai nostri giorni.* Foligno, 1931; Miraglia, B., Jr., Patria e libertà nella poesia di uno scienziato del '48. *Arpinia Sanitaria (Avellino)*, 30 Sept. 1950, 4.

33 Gall's theories were first introduced in Naples in the "Giornale Enciclopedico" of Tenore in 1807, as well as in a brochure of Dr. Giovanni Mayer in 1808. Luigi Chiaverini, who had attended Gall's course in Paris, published a summary of the phrenological doctrine in his "Esame genealogico e comparativo delle principali scoperte e doctrine mediche, etc.", Napoli, 1825.

studies on physiognomy were likewise present in his mind.[34] Because of his contribution to phrenology and his continuous interest in it even in his later years, Miraglia is generally considered as the greatest Italian phrenologist.[35]

His association with the mental hospital of Aversa began in 1843, when he was nominated physician of that hospital. The intensity of his interest in psychiatry is well represented by the fact that in the same year he began the publication, in the hospital, of the *Giornale medico-storico del Reale Morotrofio del Regno delle Due Sicilie per la parte citeriore al Faro,* the first Italian

[34] Very little attention has so far been paid to the studies in the field of physiognomy published in Italy, especially during the sixteenth and seventeenth centuries. These studies, all preceded many centuries earlier by Aristotle's *Physiognomonica,* include Biondi's *Physiognomia* (1544), della Porta's *De humana physiognomia* (1586), Ingegneri's *Fisionomia* (1662), Ghirardelli's *Cefalogia fisionomica* (1674). The best known of these studies is that of della Porta, who attempted to define morphological human characteristics on the basis of similarities between the physical traits of men and of animals, a concept which, according to Castiglioni, preceded the formulation of Lavater's theory. The connections and the reciprocal influences of all these studies have not yet been investigated, but it is interesting to note that almost all originated in southern Italy, where the magic-esoteric concept of the human body had a long tradition, derived from Pythagoras' influence. It is even more interesting to note, for the purpose of this study, that Lavater's work was translated into Italian during the years of Miraglia's youth, a fact which may raise many suppositions. (The title of the translation is: *Il Lavater portatile, o sia compendio dell'arte di conoscere gli uomini dai tratti del volto.* Napoli, Tramater, 1828.) In fact, the similarities between representations of the human body by physiognomists and by Lavater's school are rather marked (see the pictures of the human head by della Porta and Lavater in: Laignel-Lavastine, M., and Vinchon, J., *Les maladies de l'esprit et leur médecin du XVI au XIX siècle.* Paris, 1930, pp. 240-1). Incidentally, the connection between Miraglia and Gall was mentioned by the philosopher Giovanni Bovio in the epigraph he dictated for the monument erected to Miraglia in Naples a few years after his death.

[35] Besides Miraglia, the only other outstanding Italian phrenologist is Giovanni Antonio Fossati (1786-1874) who, however, spent most of his time in Paris where he lived after 1825. There he became a close pupil and friend of Gall and assisted him until his death in 1828. He maintained a long correspondance and an active scientific exchange with Miraglia as well as with other Italian psychiatrists. His main works are: *Précis analytique du système de M. le Dr. Gall sur les facultés de l'homme et sur les fonctions du cerveau, vulgairement cranioscopic.* 2d. ed., Paris, 1828; (German tr., Leipzig, 1830); *Manuel pratique de phrénologie, ou physiologie du cerveau d'après les doctrines de Gall, de Spurzheim, de Combe et d'autres phrénologistes,* Paris, 1845. (On Fossati, see Miraglia, B., Jr., Giovanni Antonio Fossati, frenologo italiano. *Boll. Ist. St. Arte San.,* 1931, *11,* 65-110.) Other Italian phrenologists of less importance are Giovanni Battista Restani from Milano, author of *Della frenologia* (1840), Timoteo Riboli from Parma, author of *Brevi e concetti e discorsi sulla frenologia,* Benedetto Trompeo from Torino, and Giuseppe Domenico Pinelli from Rome, author of *La frenologia, ovvera la scienza delle umane facoltà razionalmente dimostrata* (1878). See on all this movement: Miraglia, B., Jr., La frenologia in Italia. *Riv. Psicop. Neuropsich. Psicoanal.,* 1951, n. 1; *id.,* Medici, frenologi e psichiatri del sec. XIX, *Ann. Neuropsich. Psicoanal.,* 1955, 2, 319-406; on the phrenological movement in general, see the exhaustive studies by Riese, W., F.-J. Gall et le problème des localisations cérébrales. *L'hygiène mentale,* 1936, *31,* 105-36; *Id.,* Les discussions du problème des localisations cérébrales dans les sociétés des savants du XIX siècle et leur rapport avec des vues contemporaines. *L'hygiène mentale,* 1936, *31,* 137-58; and by Temkin, O. Gall and the phrenological movement. *Bull. Hist. Med.,* 1947, *21,* 275-321; the recent book by J. D. Davies, *Phrenology, fad and science* (New Haven, 1955), confines itself to the history of this movement in the United States.

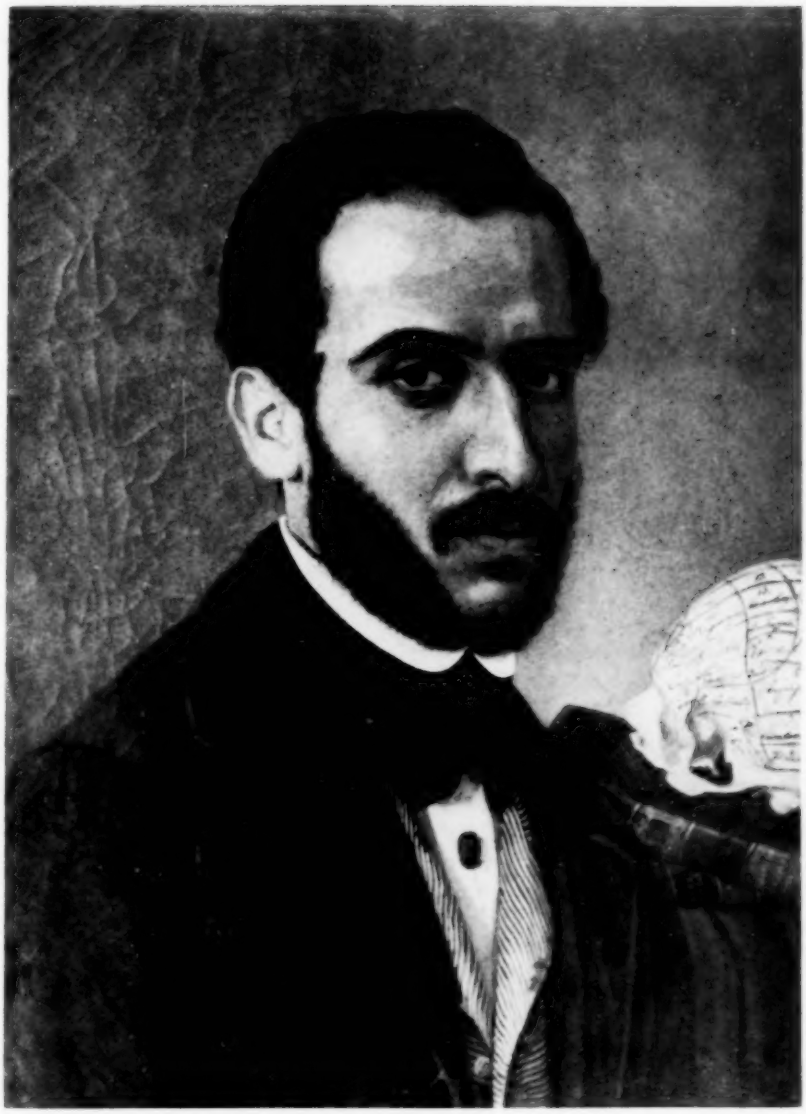

FIG. 1. Reproduction of an oil painting of Biagio Miraglia presently located in the Museum of S. Martino in Naples.

journal completely dedicated to psychiatry.[36] This date coincides with a period of relative development of science in the kingdom of Naples. In the name of science a large group of scientists, more than 1,400 in fact, took part at the 7th National Scientific Congress in Naples in 1845, the same year of Morel's visit. Because of the general liberal attitude of these scientists the police became suspicious, and the group was hurriedly dismissed.[37] This is a good example of the methods of government of that time.

In the meantime Miraglia quietly continued his work at the mental hospital, occupied with an extensive program of occupational therapy,[38] with a new classification of mental diseases, and a project for a mental hospital.[39] This project, however, could not be given appropriate publicity because at that time he was already suspected by the police. It is probable that the police considered it dangerous that ideas of freedom could be introduced even into the treatment of mentally sick patients. As paradoxical as this statement may seem, one has to remember that it was only a few decades before, in 1793, at the height of the revolutionary proclamation of liberty, equality, and fraternity, that Pinel was able to remove the chains from the patients of Bicêtre.[40]

Following the execution of the Bandiera brothers, which had taken place in Cosenza, his home town, Miraglia wrote a little poem called "I martiri di Cosenza," which may be considered his main literary creation. It was too clear and challenging a gesture of patriotism to be overlooked by the police. In fact, in that same year of 1849—a year so charged with events for Italian history—he was arrested and put in jail for more than a year.[41] With him in the horrible prisons of Castelcapuano were a number of other

[36] Ullersperger, a distinguished German historian of psychology and psychiatry, is very explicit at this point: "Miraglia war der erste Gründer einer Zeitschrift in Italien, welche sich ausschiesslich mit Irren beschäftigte, unter dem Titel 'Giornale medico storico statistico.'" (Ullersperger, J. B., *Italiens Irrenwesen aus dem laufenden Jahrzehnt*. Würzburg, 1867, p. 23.) More detailed information regarding the early Italian journals on psychiatry may be also found in: Padovani, G. *La stampa periodica italiana di neuropsichiatria e scienze affini nel primo centenario di sua vita (1843-1943)*. Milan, 1946.

[37] Giucci, C., *Degli scienziati italiana facenti parte del VII Congresso in Napoli*. Paris, 1845.

[38] For the program of occupational therapy, see *Folia medica*, 1930, *16*, 1574.

[39] This project for a mental hospital ("Progetto di uno stabilimento per alienati") written in 1849, could not be published until 1861.

[40] The famous episode of Pinel freeing the patients has been described several times. See among others: Semelaigne, R. *Philippe Pinel et son oeuvre au point de vue de la médecine mentale*. Paris, 1888, 34-5; Zilboorg, G., *op. cit.*, pp. 322-4; Bromberg, W. *Man above humanity*. Philadelphia, Lippincott, 1954, pp. 82-3.

[41] Of the many physicians imprisoned and even killed during the Bourbon's reign the most widely known was Domenico Cirillo, who was executed in 1799. On all these physicians, see: Miraglia, B., Jr. I medici meridionali galeotti politici. *Arpinia Sanitara (Avellino)*, 1950, *4*.

patriots, the most outstanding of whom were Carlo Poerio, Luigi Settembrini, and Silvio Spaventa, all well known in Italian literature and philosophy. It was not until 1851 that Miraglia was finally released, following a general political amnesty, and reappointed to his position at the hospital.

Three years later he published his main work, *Trattato di frenologia,* the best work in its field in Italian literature. In this work, as a modern psychiatrist writes, Miraglia, "an ardent, yet not servile follower of Gall's and Spurzheim's phrenology, applied its principles to the study of the morphologic constitution of mentally sick patients and of delinquents."[42]

Miraglia continued to work for the improvement of the hospital, and his work received public recognition when he was appointed to direct it in 1860. That was the year of Garibaldi's famous expedition of "The Thousand" and of the liberation of southern Italy from the Bourbon régime; it is therefore likely that certain obstacles of a political nature were removed at that time from Miraglia's way. At any rate he now had more chance to put into effect the projects that he had delayed for a long time. For several years, beginning with 1860, he wrote an uninterrupted series of interesting works of considerable value, even from an historical viewpoint. In that same year he published a work on the physiology and pathology of the brain *(Intorno alla fisiologia e patologia del cervello,* Napoli, 1860). In 1861 he resumed the publication of his psychiatric journal, *Annali frenopatici italiani,*[43] and founded the "Società frenopatica italiana," the first association of Italian psychiatrists. In 1862 he organized a course on "brain physiology" at the University of Naples, which was transformed the following year into a regular chair of mental diseases.[44] In 1864 he published a monograph on idiocy. It was also in 1861 that he was finally able to publish his project for a model hospital, which has been mentioned before.[45] At about the same time, as part of such a project, he organized a pathological laboratory and a museum of criminal anthropology. The influence of Lombroso, the well-known Italian anthropologist whose work has some con-

42 Moglie, G. Frenologia. In: *Enciel. Ital.,* 1932, *16,* 66.

43 This journal had the title of *Annali frenopatici* from 1860 to 1863, and then of *Annali frenopatici italiani* from 1863 to 1868.

44 The other Italian chairs of psychiatry at that time were in Florence, Turin, and Bologna.

45 For a useful summary of this interesting project, see: Ullersperger, J. B., *op. cit.,* p. 30, note 2.

nection with phrenology, was not yet apparent.[46] Furthermore, to Miraglia alone goes the merit of having suggested the building of a special mental hospital for criminals.[47] It was in this connection that he published two interesting studies commenting on some articles of the Italian penal law.[48]

All this activity could not escape the attention of scientists and learned people in general. In 1861 he received a gold medal from Victor Emmanuel II, King of the newly established kingdom of Italy. In the meantime he had been made member of a number of European academies and in 1863 he founded in Naples the "Accademia di scienziati, letterati e artisti." A few years later, in 1867, Ullersperger could already refer to him as "the famous psychiatrist Miraglia."[49] But no matter how much all this meant to Miraglia, more important to him must have been the recognition by foreign visitors of the improvements he had made in the hospital. One of them, the Frenchman Billot, noticed so many improvements in the hospital, compared with conditions noticed during a previous visit twenty years before, that he was not able to recognize it.[50]

Because of difficulties with the administration, Miraglia retired in 1869, after less than ten years as superintendent of the hospital. He continued, however, to be actively interested in psychiatry, becoming the superintendent of a private mental hospital in Capodichino, near Naples. There, too, visitors were impressed by the humane way in which mental patients were treated, by the comforts of the building, and by the extensive program of occupational therapy.[51]

Miraglia's later years are characterized by an increased interest in criminal psychopathology, for which he obtained recognition even in other countries. As an example of this, during the session of 26 January 1885 of the Société médico-psychologique in Paris, M. Motet, President of that association and outstanding expert in

46 Lombroso's productive work and scientific influence began, in fact, in 1867, when he was nominated professor of psychiatry in Pavia.

47 Miraglia's name was known also in England. Considering the interest evinced by Miraglia in criminology and the difficulties encountered in convincing jurists of the psychiatric implications of criminal cases, common to every country, the English psychiatrist Gasquet expressed the wish for an improvement of the situation, writing: "It is to be hoped Miraglia will be more successful in convincing Italian jurists and the public than we are generally in England" (Gasquet, J. R. *J. ment. Sci.*, 1871, *17*, 438).

48 Miraglia, B. *Osservazioni su di alcuni articoli del codice Penale.* Napoli, 1861; *id., La legge e la follia ragionante,* Naples, 1871.

49 Ullersperger, B. B., *op. cit.*, p. 4.

50 Billot, E., *op. cit.*, p. 304.

51 Tucker, C. A. *Lunacy in many lands.* Sydney, 1887, p. 1268.

legal medicine, presented in detail the conclusions of an interesting case studied by Miraglia, "le savant médecin que vous connaissez tous."[52]

A few months later, on 14 March 1885, Miraglia died in Naples. At that time it was already almost ten years since Gaspare Virgilio, the best among his pupils, had become superintendent of the hospital, leading the way to outstanding contributions in the field of criminal anthropology. Aversa's mental hospital was entering into another stage of its development, which will be treated separately later.

As was evident in the biographical data, Miraglia's interest in mental patients remained constant throughout his life. His work included a new classification of mental diseases, a project for a model mental hospital, an extensive program of activities for the patients, constant efforts toward a more scientific approach to psychiatry, and an attempt to improve the psychiatric education of physicians and medical students.

Though a detailed presentation of all these aspects is not possible here, it is worthwhile to summarize the most important aspects of Miraglia's activity. His constant aim was to emphasize that "insanity is a phenomenon which represents a material disorder of the cerebral functions, namely a special disease of the organ of the soul and of its faculties."[53] This does not imply a materialistic conception of the human mind. As he wrote in his *Treatise of Phrenology,* "mental faculties are an expression of the spirit, and not of the brain, which is only the material instrument of them." And later, "for organ one has to understand the instrument and the material condition through which the spirit, united to the body, manifests itself."[54]

In the study of mental faculties, Gall's concepts are of basic importance. Mental faculties were to be divided into affective and intellectual, each one of them being subject to impairments.[55] The development of the faculties of the mind depends upon the development of the organs; thus excitation of such organs produces excitement and disorders of the mental faculties, while de-

52 Motet, M., Analyse d'un rapport médico-légal du Dr. Miraglia sur un cas d'homicide. *Ann. méd. psychol.,* 1885, *43,* 485.

53 Miraglia, B. *Programma di un manicomio modello italiano.* Aversa, *Tip. del Morotrofio,* 1861, p. 3.

54 Miraglia, B. *Trattato di frenologia,* Naples, 1853, vol. I, p. XV.

55 It is not possible, in the limits of the present study, to describe in detail the classification used by Miraglia. The reader familiar with Gall's system will find a similar system in Miraglia's *Treatise of phrenology.*

TRATTATO

DI

FRENOLOGIA

APPLICATA ALLA MEDICINA,
ALLA GIURISPRUDENZA CRIMINALE, ALLA EDUCAZIONE, ALLA MORALE,
ALLA FILOSOFIA, ALLE BELLE ARTI, EC.

DEL DOTTORE

B. G. MIRAGLIA

SOCIO CORRISPONDENTE DELLA SOCIETÀ FRENOLOGICA DI PARIGI EC.

(CON ATLANTE DI FIGURE)

VOLUME I.

NAPOLI
STABILIMENTO-TIPOGRAFICO DELL' ANCORA
Largo s. Marcellino, 2.

1853

FIG. 2. Title-page of Miraglia's principal work. (From the copy in the New York Public Library.)

pression of the same organs produces decrease of the faculties. To the disturbances of the affective faculties belong mania, melancholia, and insanity, to disturbances of the intellectual faculties, dementia and idiocy. The pathological process progresses from mania to insanity and from insanity to amentia: this is the last term, because amentia is the result of an anatomical irreversible change in the brain.

The study and especially the treatment of such severe mental conditions—which today would be called psychoses—should be conducted, obviously, in a mental hospital. Miraglia, who worked for many years in such an environment, had the opportunity to make many observations on how to improve the institution. What is important here is that all these observations were based on the principle that in a mental hospital everything should be centered around the patient and how to offer him the best conditions for recovery; a principle which was frequently disregarded elsewhere at the time of Miraglia's work.

According to his writings, a mental hospital should be built in the country but not far from a large center; it should be elevated on several floors, with two main divisions, for men and women. Different wards should be assigned to children, to old invalid and incontinent patients, to co-operative and convalescent patients, to delinquents committed by law, and finally to patients affected by physical diseases. The hospital should have between 200 and 500 patients, divided into groups of 2 to 16 in each room, and should be equipped with modern baths, a large kitchen, and scientific laboratories. At the time of admission of each patient, detailed information should be obtained with the assistance of the local authorities. The ventilation and temperature systems, the way patients dress, the type of diet, and especially the sleeping and bathing arrangements should all be carefully planned and controlled.

In criticizing the abuse of cruel and barbaric methods of restraint applied to mental patients in the past, during periods of ignorance and superstition, Miraglia insisted that humanitarian and charitable practices were very effective in relaxing agitated patients. In fact, in the mental hospital of Aversa, physical restraints had to be used only for two or three patients out of a total number of 800. They could have been completely abolished if the rooms had been more adequate and the personnel increased proportionally to the number of patients.

In addition to individual medical treatment based on brain physiology and pathology, he emphasized the value of moral treatment because of the unity of body and mind. It was his idea that the complete treatment, namely medical and moral, could reorganize the impaired functions of the brain, depressing the irritated ones and exciting the depressed ones. This was possible because of the assumption—in line with phrenological doctrine—that not all the faculties of the mind are impaired in insanity, but that some remain healthy. However, in view of the innumerable ways in which a brain can become impaired, each case had to be evaluated and treated individually by the psychiatrist.

General principles were applicable, of course, to all the patients. Occupations of different kinds, while important for maintaining social intercourse between patients, were to be selected according to the cerebral physiology of the individual patient. A state of fatigue had to be avoided in every case, and perhaps for this reason agricultural work was considered inadvisable. Rather, practising arts, reading books, and playing music were all considered useful occupations. Special attention was given to the staging of dramatic plays, as described in detail in a previous paper.[56] Religious activities, though beneficial in principle, were to be limited, because of the tendency of many patients toward a form of religious asceticism in a country as traditionally inclined to superstition and religious terror as southern Italy.

In regard to the hospital staff, Miraglia conceived the superintendent as both a skilful psychiatrist and administrator, in a word, as the center and the coordinator of all the activities of the institution. He should be surrounded by a humane, charitable and intelligent staff and in particular by a group of physicians working closely with him.

Miraglia was aware, of course, of the tremendous task faced by those interested in mental disorders. Not only was a complete knowledge of the pathology of the brain essential, but also of its clinical manifestations which could be learned only through continuous contact with patients in the hospital. Even more important than this, mental hospitals were to be schools of love and charity, and the physician—beside having good intellectual qualities and adequate instruction—was to be charitable, patient, religious, and endowed with all the good qualities which stimulate

[56] Mora, G. Dramatic presentations by mental patients in the middle of the 19th century, and A. Dumas' description. *Bull. Hist. Med.*, 1957, *31*, 260-77.

love, respect, and confidence in the patients. "The patients, in fact," wrote Miraglia, "are inclined to open their hearts to confidence, hope, and benevolence, to relax and to free themselves from melancholia and from their troubles in general, when they find support in the authoritative and kind words of the psychiatrist."[57] Nurses and attendants were to cooperate with doctors, with kind and benevolent manners. The mental hospital had to have a chaplain, endowed with psychological and physiological knowledge.

From the educational viewpoint, Miraglia emphasized the value of reporting the scientific activities of the hospital in a special journal to be widely distributed to the physicians of the country. Medical students should become acquainted with mental pathology through formal lectures and pathological demonstrations. The mental hospital should therefore include a clinic, a pathological laboratory, and a library.

As a final suggestion, Miraglia recommended continuous contact and exchange of ideas among psychiatrists, to be made possible through the foundation of a medical-psychological association.

Miraglia was well aware of the difficulties involved in carrying on such an extensive program of reforms. In fact, he enumerated in detail the erroneous practices that should first be discontinued. But he remained confident that the good attitude of the government and of the population in general would make it possible finally to accomplish the great humanitarian reform that mental patients demanded.

After reviewing the work of Miraglia and of the other representatives of psychiatry in Naples in the nineteenth century and attempting to present it in the historical perspective of the time, a few critical remarks may now be indicated. First of all, one receives the impression that there is no historical continuity between the work of the psychiatrists mentioned above. Each one of them (and Miraglia most of all) seems to have acted as an isolated individual, as a precursor of his time or as a pioneer in spite of his time. This could be due to different reasons, not least to the scarcity and isolation of intellectual representatives of the conservative élite of Naples, and to the independence and autonomy of the institutions.

[57] Miraglia, B. *Programma di un manicomio modello italiano*, p. 72.

A comprehension of the main themes underlying the philosophy of these psychiatrists seems here essential. Unfortunately, this aspect cannot be easily clarified for a number of reasons, the most significant of which is perhaps the manifold interplay between the original Italian tradition and the strong influences coming from other countries, especially from France.

The significance of the culture of southern Italy itself has been subjected to different interpretations. A main trend seems, however, fundamental: the mystic-esoteric, whose long tradition begins with Pythagoras and continues in the Middle Ages with Gioacchino da Fiore and in the Renaissance with Bruno and Campanella. This current, though not too well known, because of the opposition of the Church, is perhaps the most truly representative of the spirit of the inhabitants.[58]

Two giants of thought stand out in the cultural development of southern Italy: Saint Thomas Aquinas in the Middle Ages and Giambattista Vico in the seventeenth century. Scholasticism, represented by Thomas Aquinas, declined, however, in the fourteenth century and was revived only recently, and the work of Vico, the father of modern historiography, though today more and more recognized, was in the past, and especially in the eighteenth century, overshadowed by the strong influence of the French writers of the "Encyclopédie" and of the Revolution.

This French influence deserves special consideration because of the universality of its concepts which made it accepted in all Europe. For the purpose of this study, it is important essentially because it was under Descartes' influence that dualism between body and soul was introduced and played a great role in philosophy as well as in psychology. This Dualism is significant here because it underlies the concept of mental pathology formulated by the above-mentioned psychiatrists. A dualistic concept of human nature is clearly the basis of the philosophy of Linguiti, of Sementini, of Ferrarese, as well as of many other scientists all over Europe. On the one hand, mental diseases were conceived as due to a disorder of special and localized parts of the brain, so that an effective therapeutic action supposedly had to be directed at the readjustment of the impaired parts of the brain; on the other hand, the everyday and empirical—and yet very valid—observation of patients revealed that psychological disorders were due

[58] See, for instance, the recent interpretation of Italian tradition as essentially neoplatonic: Giusso, L., *La tradizione ermetica nella filosofia italiana*, Milan, Bocca, 1955.

to the "passions de l'âme," for whose treatment only a sympathetic and simple approach seemed effective.

In reading the work of the authors of the time, one cannot escape the feeling of a continuous alternation between the two trends, one essentially intellectual, the other essentially emotional. This seems particularly present in the authors of the eighteenth and beginning of the nineteenth century, as if—transposed in historical terms—the instability of their position were the expression of the change of society and value from the absolutistic and enlightening to the liberal and romantic era.

The cartesian dualism found its highest, but already declining expression in phrenology, where the attempt to localize the seat of the personality—namely, of the soul—reaches a paradoxical level. The introduction in Italy of phrenology as well as many other doctrines is the result of the universal attitude of French culture at the time of the Revolution.

In Naples the influence of phrenology was perhaps stronger than in other places, due to the impact of cartesianism on that city, as Croce has many times emphasized.[59] Descartes' psychology presents a considerable weakness if evaluated in its internal motives.[60] There is constant alternation between a philosophical and a psychological position, with the final introduction of "passions" in order to overcome the irreducible difference between body and soul.

This concept of passions is an interesting one, because it brings us close to the theory of physiognomy and to its mystic and occult symbolism, of which mention has already been made. Phrenology represents, therefore, in Naples the point of confluence of the rationalism of the French tradition with the mysticism of southern Italy. True, Miraglia's interest in phrenology could be simply explained on the basis of the large diffusion of that theory at that time, even in the United States. But in Italy phrenology was influenced by the local tradition, just as, in the political field, the philosophy of the "Carbonari,"[61] similar to that of the freemasons,

[59] Croce, B., *Storia del regno di Napoli*. 3d ed. Bari, Laterza, 1944, pp. 168-81. The opposite opinion, that cartesianism did not influence the culture of Naples, was expressed by the medical historian S. De Renzi (*Storia della medicina in Italia*, Napoli, Filatre-Sebezio, 1846, vol. IV, p. 242), but does not seem to be critically reliable.

[60] The criticism of Steno (Niels Stensen) directed toward Descartes in his beautiful *Discours de Monsieur Stenon sur l'anatomie du cerveau*, Paris, 1669, maintains its significance even today.

[61] On the "Carbonari" see note 31.

was a strange mixture of rationalistic "jacobinism" and of religious superstition.[62]

Miraglia's work is the expression of the confluence of the different tendencies above mentioned. Yet a strong attempt is made to organize these tendencies in a system—as is typical of eighteenth century tradition—to which clinical practice must adapt. A successful integration was not achieved, however, and one receives the impression of an hiatus between theoretical formulations and practical applications. But the significance of his work in its very last motivation becomes clear if understood, as a tendency, far from sterile discussions, towards a humanitarian and clinical approach to patients. It is only on the basis of this practical approach, which Chiarugi had introduced in Florence, Pinel in Paris, and Tuke in York, that Miraglia's work at Aversa can be considered as the expression of a school; namely, to terminate our historical analogy, as the definite transition from the era of the feudal obscurantism to the era of the humanitarian and yet scientific approach to mentally sick patients.

Around the last quarter of the past century the different currents converging in the work of Miraglia, as well as of other phrenologists, acquired a separate entity. The psychological expression of emotions connected with the old studies on physiognomy were to be investigated by Carus, Darwin, and Mantegazza. The anthropological study of the criminal found its best representative in Lombroso and his "positive school." Broca, Flechsig, and their pupils were to elaborate the very helpful and intriguing concept of "cerebral localisations."

Of these three separate scientific schools, only the second one, the criminal anthropological, acquired importance in Aversa through the work of Gaspare Virgilio, Miraglia's favored pupil.

62 As is well known, Gall attempted to prove the existence of God with the presence of the organ of religious sentiment. In so doing, he admitted an "innate" harmony between moral and physical laws. (See Temkin, *op. cit.;* and Davies, *op. cit.*, especially chap. 13, Phrenology and religion.)

Notes and Events

Edited by Dorothy M. Schullian*

Harvey Presentation Copies

A paper, "William Harvey, Weir Mitchell, and the College of Physicians of Philadelphia," in The William Harvey Issue (April, 1957) of the *Journal* described at some length a copy of the first edition of Harvey's *De generatione animalium* (London, 1651) which, on the evidence of an inscription in the book, had been presented by the author to Francis Bernard, 1 May 1651. By quoting Harvey's eminent bibliographer-in-chief to the effect that there is no record of a presentation copy of any of Harvey's books, the author of the paper, the present writer, may have encouraged an uncynical reader or two to conclude that the copy at the College of Physicians of Philadelphia is, in this interesting respect, an *unicum*.

In *The Works of William Harvey, M.D.*, translated by Robert Willis (London, Sydenham Society, 1847) there is to be found a letter written by Harvey to his first and ablest supporter in Germany, Paul Marquart (or Marquard) Schlegel (or Slegel) (1605-1653). It contains (pp. 596-7) this sentence: "I was myself preparing a sponge for his [Riolan's] most recent arguments; but intent upon my work 'On the Generation of Animals' (which, but just come forth, I send to you), I have not had leisure to produce it." As this letter is dated 26 March 1651, Harvey appears to have presented, within a few weeks of its publication, copies of the first edition of *De generatione* to both Schlegel, in Germany, and Bernard, in England.

Nor did his largesse come to an end even there, apparently. In a pleasantly informative article on "Thomas Windsor, Benefactor of the Army Medical Library" *(Bulletin of the Medical Library Association*, 1950, *38*, 135-44), Dorothy M. Schullian, Ph.D., records what appears to be another presentation copy of the first edition of *De generatione*, a gift of Windsor, in 1883, to what is now the National Library of Medicine. In personal correspondence, she describes the presentation aspects more fully as follows: "At the top of the engraved title (which is bound with the blank verso facing the t.p.), 'Ex dono auctoris' is penciled in an old hand. On the verso, an oval engraved portrait of Harvey has been pasted in, and above is written in ink:

> Continet expressam depicta tabella figuram
> Harvaei, ingenium nulla tabella capit.
>
> In effigiem Clarissimi, Doctissimi'q$\bar{3}$
> amici sui Johannes Gravius scripsit.

* Cleveland, Ohio.

On the verso of the regular title page is pasted the bookplate of The Right Hon.ble Algernon Capell, Earl of Essex, Viscount Maldon, & Baron Capell of Hadham. 1701." Referring to this evidence as somewhat wobbly (an adjective equally applicable, of course, to the evidence offered by the other supposed presentation copies discussed here), Dr. Schullian translates Johannes Gravius as John Greaves, having in mind, doubtless, the English mathematician of that name (1602-1652), who is said to have corresponded with Harvey and of whom there is an interesting account in the *Dictionary of National Biography*.

Then, a recent Grolier Club exhibit again brought to light an equally interesting fourth supposed presentation copy, this time of *De motu cordis* in its original edition (Frankfurt, 1628). Formerly owned by Robert F. Loeb, M.D., it was for a time on deposit in the library of the New York Academy of Medicine; now the property of Dr. Loeb's son, Mr. John N. Loeb, it is presently on deposit in the Houghton Library, at Harvard.

A description of the Loeb copy was published by the late Archibald Malloch, M.D., in the *Bulletin of the New York Academy of Medicine*, 1929, 2d s. 5, 865-6. Malloch therein gives the inscriptional evidence as follows: "Clarissimo viro Marco Aurelio Severino ab Illustrissimi [sic] Autore dono missus cum Libris." The inscription actually reads: "Cl. Viro Marco Aurelio Seuerino ab Ill: Autore dono missu' cu' Libris." (Though the third name has been read *Seuerius*, syntax and the logic of the situation unite in commending Malloch's reading, of course. His use of an incompatible case-ending in filling out the abbreviation *Ill:* suggests merely a lack of opportunity on his part to read the proof.)

Here, then, are records of four copies of works of Harvey that claim to have been presented by the author. Under the circumstances, all that can be asserted with any confidence is that all four of the supposed recipients—an Italian, a German, and two Englishmen—were living at the time the books were published; and that the positions of at least three of them present them as plausible recipients of the honor. It would seem reasonable, therefore, to posit the existence *in tenebris* of a number of similar copies—unrecorded, or obscurely recorded. The trick, clearly, would be to find one bearing a presentation inscription in the most illustrious author's own "indifferent" hand.

I am indebted to Dr. Schullian for the information regarding the Greaves copy; to Mr. Edwin Wolf, 2nd, for calling my attention to the presence of the Loeb copy in the Grolier exhibit; to Fred B. Rogers, M.D., and Prof. William A. Jackson, Librarian of the Houghton Library, for transcripts of the inscription in the Loeb copy; and to the last, additionally, for the information regarding its present ownership, and for guiding me to Dr. Malloch's description of the copy.

W. B. McDaniel, 2d

Vesaliana

The Royal Library in Stockholm numbers among its holdings a copy of the 1543 edition of Andreas Vesalius, *De humani corporis fabrica.* This has been long in the possession of the library. The inventory catalogue of the year 1695 (MS. Royal Library, U.118.4) records under "Medici in fol.," no. 93, "Andreae Wesalii Bruxellensis de Humani Corporis Fabrica libri septem, Basileae 1543." In the inventory by Johannes Jacobus Jachesius of the volumes saved from the great fire of the Royal Palace in 1697,[1] there is an entry for a copy of the *Fabrica,* 1543, no. 108 among the "Medici in fol." Since Jachesius for each item in his inventory notes also the numbers of the inventory of the year 1695, there is no doubt that the two entries refer to the same copy. It must have been on the occasion of the great fire, when three fourths of the collections were destroyed, that the sixteenth century binding, leather on wooden boards, was so damaged that the library in the latter half of the nineteenth century felt obliged to restore it. As a result only two small strips of the original leather remain, and every possible trace of previous ownership has been lost.

Yet the copy presents an interest of its own because of inscriptions entered in it early in the seventeenth century. On page 163, beside the woodcut of the skeleton (anterior view), a seventeenth century hand has inscribed the following Latin distichs:

P.* Haeccine forma tibi Misera? ô quis talia fando
Explicet! ô quis te non neget esse meam!
B. Illa ego sum, illa tibi toties repetita puella:
Quam toties dixti dimidium esse tuj.
P. Non ita lurida eras, ipsis vix ossibus haeres:
Ah vbi sunt oculi, purpureaeque genae?
Crinis vbi nitidus, fuluóque simillimus auro,
Nocte dieque mihi basia mille data?
Haec quoties subeunt mentem mea tristia fata
Nequicquam inclamo, fit mihi vita dolor,
Affixam lateri sociam dum cogito quondam,
Deliciasque meas suauiolumque meum!
Viuere cur vellem? Mors est medicina doloris:
Obruite ô Parcae rumpite fila Deae.
Vixi fortassis, Parcae, ne parcite, quaeso:
Vnaque prostratos seruet ut urna duos.
B. Puluis eram, puluis sum, aeterna lege quiesco:
Sors eadem sequitur te quoque. Disce MORJ.

* P = Pater, B = Beata, that is, the deceased daughter?

The elegy, a dialogue, is in the style of humanistic Latin poetry of the Renaissance. The learned humanist Giovanni Gioviano Pontano, to choose

[1] MS. U.122 = Register so nach dem klägl. grossen Brande geretteten und in grosser Confusion gewesenen Bücher eiligst gemacht . . . von Johann. Jac. Jachesius. See Stenbock, C. M., Joh. Jac. Jachesii register öfver Kungl. Biblioteket efter slottsbranden. *Nord. tidskrift för bok- och biblioteksväsen,* 1914, *1,* 44-51.

one from the many Italians of the fifteenth century who wrote Latin verse, published two books of funeral poems, *Tumuli,* for the tombs of real or fictitious persons, e.g., "Tumulus Sulpitianae Puellae. Viator et Umbra colloquuntur."[2] Such poems were written in the humanistic schools as exercises in Latin eloquence.

Moreover, on page 164, under the pentameter on the side of the tomb on which the skeleton is leaning, the same hand has added another Latin distich:

> Vivitur Ingenio miserè, si vivitur usquam:
> Sola manet Virtus, caetera pulvis erunt. A.V.

It might not be too hazardous to suggest that the writer of these lines meant the last two letters to stand for "Andreas Vesalius." That the elegy and the distich can be autograph inscriptions by Vesalius is out of the question. Yet the person who inscribed the lines wanted to imply that he composed at least the distich on page 164. Some doubt may arise about Vesalius as author of the poem, since he borrowed from other sources the pentameter inscribed on the side of the tomb here and also the two hexameters on the corresponding woodcut in the Latin *Epitome,* leaf K*a*.[3] He did, however, insert in the *Venesection Epistle* of 1539 a poem of his own composition. Vesalius had received thorough training in the humanities, and this included the composing of Latin poetry. But the letters "A.V." are not sufficient evidence for us to maintain seriously that he is the author of the distich. Composed by Vesalius or not, however, it portrays the state of mind of a disillusioned Vesalius, who had seen his work getting little immediate appreciation by his contemporaries and who was attacked by former pupils and colleagues trying to rob him of his merits. It represents in this a tradition from the period following that of Vesalius.

RUBEN ERIKSSON

Correspondence concerning Dr. John K. Mitchell's REMOTE CONSEQUENCES OF INJURIES OF NERVES AND THEIR TREATMENT *(1895), Including Two Unpublished Letters by Dr. William Osler*

Recent discovery of Dr. John K. Mitchell's personal copy of his book, *Remote Consequences of Injuries of Nerves and Their Treatment,* published by Lea Brothers & Co. of Philadelphia in 1895, brought with it a sheaf of letters to the author congratulating him on the publication of his work. Son of Dr. S. Weir Mitchell, John Kearsley Mitchell (1859-1917) followed

[2] Pontano, Giovanni Gioviano, *Carmina quae quidem extant omnia,* in his *Opera,* vol. 4, Basileae [1556], = Tumuli, Lib. 1-2.
p. 3396: Tumulus Sulpitianae Puellae.
p. 3400: (Tumulorum Lib. 2) Tumulus Luciae Pontianae filiae. Pontanus Pater ad sepulcrum queritur.

[3] Roth, M., *Andreas Vesalius Bruxellensis,* Berlin, 1892, p. 164, 174 n. 1. The pentameter is borrowed from Dürer's portrait of Willibald Pirkheimer, and the hexameters of the *Epitome* are borrowed from Silius Italicus, *Punica,* XII, 243 f. In the German *Epitome* the general idea of the second of these two lines is rendered in German.

in the professional footsteps of his distinguished neurologist-father. The son's book, a follow-up on a group of cases of nerve injury seen by his father during the Civil War, provided a sequel to earlier volumes, *Gunshot Wounds and Other Injuries of Nerves,* by S. Weir Mitchell, George Morehouse, and W. W. Keen (1864), and *Injuries of Nerves and Their Consequences,* by S. Weir Mitchell (1872). Dr. John ('Jack') K. Mitchell affectionately dedicated his volume "to S. Weir Mitchell, severest of critics and kindest of fathers, in the hope that it may please him in both characters."

Two of the letters, handwritten to the Doctors Mitchell on small blue letterhead from Baltimore by Dr. William Osler and recently presented to the Historical Collections of the Library of the College of Physicians of Philadelphia, are now published for the first time. The first letter, to Dr. S. Weir Mitchell, begins with a characteristic note of cheer and wit. Congratulations are offered to the father and a professional assist to the son. The "Hcw" probably refers to Dr. Horatio C Wood, contemporary medical leader whose patronage the younger Mitchell may have sought.

The second letter, directed to Dr. J. K. Mitchell, gives cordial encouragement and support to his younger friend and professional brother.

1 West Franklin St.
Wednesday

Dear Dr. Mitchell

Miss Carroll's blood count is, like her face—good. 92% haemoglobin, and 5,200,000 corpuscles per c.m. There are no changes in the leucocytes or in the red corpuscles. Dr. Nordhoff's instruments or eyes must have been at fault.

I have been reading Jack's book with interest. It is a solid bit of work which will always be referred to. I had his name put up at the association this year. I thought it had been done but Hcw said he had no knowledge of it. Sorry to hear that you have been laid up—the woods will cure you.

Sincerely yours,
Wm Osler

1 West Franklin St.
Saturday

Dear J. K.

I congratulate you most heartily upon the completion of a bit of first class work, which must remain for a long period the standard authority on the subject. How pleased your father must be with it & with the way it supplements his old studies.

The section on ascending neuritis interests me very much—'tis the only one I have read carefully.

Sorry to have seen so little of you this winter. I am revising my textbook and find the work most irksome. Have you not a list of corrections which you promised—an additional one? With sincere regards to Mrs. Mitchell.

Yours ever,
Wm Osler

In addition to these two letters from Osler, notes of congratulation preserved in the author's copy of his book came from leading physicians in the United States and England. These letters, written between 2 June 1895, and 27 February 1897, are mostly on professional letterheads. Congratulations came chiefly from Philadelphia colleagues; Drs. George Morehouse and W. W. Keen, his father's Civil War associates, penned words of appreciation. Dr. Morehouse noted, "I was particularly pleased with the dedication." Dr. Jacob M. DaCosta wrote, "I recognize the enormous work it has entailed and congratulate you on its successful issue." Professor Horatio C Wood called the book "unique, valuable, and very well put together." Dr. James J. Putnam, of Boston, also sent felicitations. Two New York physicians, writing from Brooklyn, Drs. William Browning and H. Enton, commented briefly on cases described in the book which had come under their care. From London, J. Hughlings Jackson wrote to Weir Mitchell, thanking him for forwarding a copy of his son's fine work.

Lastly, a nonmedical friend, the novelist Owen J. Wister, of Philadelphia, wrote to "Jack" Mitchell on 2 June 1895, to thank him for sending on a copy of the book. Wister commented upon the current hot spell: "That I have not read it you will understand when I say that I have found it too hot to read even the Bible! The pleasure & profit I expect from it must be deferred until we reach the temperate zone again."

A short, unsigned review, taken from the *New York Sun* of 4 November 1895, was among several printed clippings tipped into the author's copy—along with the letters of appreciation. This review briefly summarized the value of this work to contemporary medicine.

John K. Mitchell, M.D., of Philadelphia, has made a unique contribution to the literature of his profession by following up cases of nerve injury received during the Civil War. The number in whom definite symptoms have persisted, even when the original lesion was slight, is very striking. These effects were chiefly pain, intolerance of heat and light, or of both; changes, such as thinning of the nails and ulceration around them, glossy skin and one or two instances of increased growth on the side affected.

FRED B. ROGERS

An Historical Criticism of Tumor Metastasis

Current concepts are often contrasted with what is considered the old view. This paper briefly examines one such comparison made in the field of tumor metastasis.

"Observers of the past," wrote Fried[1] in 1958, "held that carcinoma disseminates essentially by way of the lymphatics." But he wrote also that "the notion that there exists a type of 'lymphophilic' cancer which remains within the lymphatics 'for life' shunning entirely the blood stream

[1] Fried, Boris M. *Bronchiogenic carcinoma and adenoma.* London, Bailliere, Tindall, & Cox, 1948, pp. 89 and 92.

is now abandoned." This is not an isolated view, being, for example, the opinion of Payling Wright.[2]

Two questions need answering. First, was the old theory of metastasis essentially lymphogenous? Secondly, is the hematogenous theory finding favor recently?

As Long[3] pointed out in his *History of Pathology,* the mechanism of metastasis was not understood before the nineteenth century. John Hunter,[4] in his eighteenth century lectures, did not account for cancerous invasion of tissue that "seems to have no connexion whatever with the (primary) diseased part." Nor did Sir Everard Home[5] in 1805.

Later pathologists believed, as we now do, that local and lymph node metastases were lymph-borne. They did not believe that distant deposits were also lymphogenous. Rather, they too indicted the blood stream. Thus, in the prize essay of the Royal College of Surgeons of England for the year 1808, Johnson[6] referred to those who contended that cancerous matter entered the "circulating system" before bringing about "a taint of the whole habit." Of such far flung secondaries, Macfarlane[7] said in 1832, "It is impossible that the diseased action could have been communicated through the medium of the absorbents (lymphatics)." He favored blood spread. So did Hodgkin,[8] who surmised that it was "more than probable" that the blood vessels were "in some way connected with the extension of the disease."

These were all conjectures. By 1843, however, Watson[9] was fairly emphatic on what took place in metastasis:

. . . . these (cancer) germs are probably carried sometimes through the lymphatic vessels to absorbent glands in the vicinity of the primary growth; but there can scarcely be a doubt that the *blood* is the main channel by which the seeds of this dreadful malady are conveyed from its first to its subsequent sites.

Even today, there has been no full change in emphasis. Recently, for example, Willis[10] wrote:

2 Wright, George P. *An introduction to pathology.* London, Longmans, 1956, p. 444.

3 Long, Esmond R. *A history of pathology.* Baltimore, Williams & Wilkins, 1928, p. 155.

4 *The works of John Hunter.* Edited by James F. Palmer. London, Longmans, 1835, vol. 1, p. 621.

5 Home, Everard. *Observations on cancer.* London, Nicol, 1805, p. 146.

6 Johnson, Christopher Turner. *A practical essay on cancer.* London, Callow, 1810, p. 75.

7 Macfarlane, John. *Clinical reports of the surgical practice of the Glasgow Royal Infirmary.* Glasgow, Robertson, 1832, p. 44.

8 Hodgkin, Thomas. *Lectures on the morbid anatomy of the serous and mucous membranes.* London, Sherwood, Gilbert & Piper, 1836, vol. 1, p. 276.

9 Watson, Thomas. *Lectures on the principles and practice of physic.* London, Parker, 1843, vol. 1, p. 207.

10 Willis, Rupert A. *The spread of tumours in the human body.* London, Butterworth, 1952, p. 36.

While local spread of many carcinomas is partly, sometimes predominantly, by lymphatic routes, discrete metastatic growths within remote viscera almost always denote embolic metastasis by the blood-stream.

It is evident therefore that with regard to metastatic pathways teaching has hardly changed. From the early speculative period, teaching has remained that local and lymph node spread is lymph-borne, remote spread blood-borne. This was the authoritative view of Cruveilhier,[11] Paget,[12] Rokitansky,[13] Campbell de Morgan,[14] Pepper,[15] and Coats.[16] A new trend has, however, emerged in the present century. Handley[17] began it in 1905 when he advocated lymphatic spread to the viscera. Few gave him full support, but many are now beginning to write in support of lymphogenous dissemination to certain stipulated remote organs. In a review of the literature on the spread of lung cancer, I found a few authors who had accepted lymphatic spread to the adrenals.[18] In contrast, the old observers seldom, if ever, accepted the possibility of such metastasis to this or other organs.

In conclusion, a survey of the literature does not vindicate the view that the early observers thought that carcinomas spread essentially via the lymphatics. But today the lymphogenous theory of metastasis is finding increasing favor at the expense of the hematogenous theory.

W. I. B. Onuigbo

11 Cruveilhier, Jean. Quoted by Willis.[10]

12 Paget, James. *Lectures on surgical pathology*. London, Longman, 1853, vol. 2, p. 581.

13 Rokitansky, Carl. *A manual of pathological anatomy*. London, Sydenham Society, 1849-54, vol. 1, p. 256.

14 Morgan, Campbell de. Address introductory to a debate on the subject of cancer, delivered before the Pathological Society. *Med. Times Gaz.*, 1874, *1*, 257-61.

15 Pepper, Augustus J. *Elements of surgical pathology*. London, Cassell, 1884, p. 499.

16 Coats, Joseph. *A manual of pathology*. London, Longmans, 1895, p. 249.

17 Handley, W. Sampson. Dissemination of mammary cancer. *Brit. med. J.*, 1905, *1*, 663.

18 Onuigbo, W. I. B. Some observations on the spread of lung cancer in the body. *Brit. J. Cancer.*, 1957, *11*, 175-80.

Alfred Alexander Woodhull, John Shaw Billings, and the Johns Hopkins Hospital, 8 June 1871

It is not the purpose of this note to minimize the achievements of John Shaw Billings in hospital construction in general and in the planning of the Johns Hopkins Hospital in particular. His position is secure and eminent in these regards, and a grateful nation will continue to honor him for these as well as for his other contributions to a new era of American medicine. As Dean Alan M. Chesney[1] stated so aptly on the one hundredth anniversary of his birth,

1 *Bull. Inst. Hist. of Med.*, 1938, *6*, 273-4. The story is told more fully in the same author's *The Johns Hopkins Hospital and the Johns Hopkins University School of Medicine*, Vol. I, Early years, 1867-1893. Baltimore, The Johns Hopkins Press, 1934.

At the request of the Secretary of the Treasury he undertook a survey of all the hospitals conducted by the Marine Hospital Service, an assignment which gave him a thorough grasp of the problems of hospital construction and management. This survey together with his report on Army Barracks and Hospitals, which appeared in 1870, established his reputation as an authority on hospital construction, and it was only natural that the Trustees of the Johns Hopkins Hospital should include him in the list of 5 experts on hospital construction whom they invited to submit plans for the new hospital. As is well known, his plan was accepted and he was engaged by the Trustees to supervise the construction of the buildings. He took up these duties on July 1, 1876, at which time he was but 38 years of age.

Fielding H. Garrison[2] had accorded him similar and deserved praise, and Alfred Alexander Woodhull, writing his obituary in the *Journal of the Military Service Institution,*[3] had assigned the credit in terms equally clear and unequivocal:

In 1875 his plans for the famous Johns Hopkins Hospital were accepted by the trustees of the Foundation from five that had been submitted at their invitation. It was a remarkable and deserved honor, creditable to the sagacity of the Board and redounding to the welfare of the organization and through it to that of practical and theoretical medicine the world over.

But in all this one modicum of credit has gone unassigned, and it is due the same Alfred Alexander Woodhull who so modestly refrained from mentioning in the obituary any part played by himself in the conception or realization of the Johns Hopkins Hospital.

Who was this Alfred Alexander Woodhull with whose accomplishments few medical historians today are familiar? He had as an Army surgeon a devoted and distinguished career which is properly set down in the usual tools of biographical reference,[4] but the true measure of the man is of course more fully apparent from his letters. Born in Princeton in 1837, the posthumous son of a physician-father of the same name and the eighth in descent from the first Woodhull who had settled in America in 1648,[5] he received his A.B. from the College of New Jersey (later Princeton University) in 1856 and his M.D. from the University of Pennsylvania in 1859. He had two years of private practice in Leavenworth and Eudora, Kansas, before, amid stirring times, he indited on 5 July 1861 to the Hon.

2 *John Shaw Billings,* a memoir. New York and London, G. P. Putnam's Sons, 1915, pp. 181-212.

3 1913, *53,* p. 336.

4 Watson, Irving A., *Physicians and surgeons of America,* Concord, New Hampshire, Republican Press Association, 1896, p. 231; Heitman, Francis B., *Historical register and dictionary of the United States Army,* Washington, GPO, 1903, vol. I, p. 1057; *Who's who in America,* 1920-21; *J. Amer. med. Ass.,* 1921, *77,* 1511; the obituary by Fielding H. Garrison in *The Military Surgeon,* 1921, *49,* 711-12; *DAB,* 1936, vol. XX, p. 492.

5 *Woodhull genealogy.* The Woodhull family in England and America. Compiled by Mary Gould Woodhull and Francis Bowes Stevens. Philadelphia, Henry T. Coates & Co., 1904, pp. 350-2.

Simon Cameron, Secretary of War, the letter[6] which was to remove him forever from private practice.

I am desirous [he said] of obtaining a situation as Assistant Surgeon in the Army. . . . Should there be a vacancy, either present or prospective, of this nature in the Medical Staff, or a similar situation in a hospital (if such positions are distinct), I beg leave to present my name as a candidate for it. . . . Since July, 1859, I have been engaged in my profession in Kansas, and since October of that year have practised south of the Kaw river in this state. I call attention to this from the fact that our climate is warmer, and our types of disease approach more nearly those of the South, than those of any other of the Free States. . . . I call attention to the enclosed letters, one from the venerable Dr. Samuel Jackson, senior professor in the University of Pennsylvania, and the other from Dr. Henry H. Smith, professor of surgery in the same institution and Surgeon-General of Pennsylvania. Should they be of no service I beg they may be *returned,* that I may use them in procuring a similar situation in the Volunteer forces. I solicit some notice of this communication.

The two letters of recommendation were of service and they remain in his file at the National Archives. In August he appeared before the Army Medical Board in New York and was quickly assigned to duty as Acting Assistant Surgeon in the Union Hospital at Georgetown,[7] where in September he first met John Shaw Billings.[8] On 19 September he received his commission. He served throughout the War of the Rebellion—at Bull Run and Antietam in 1862,[9] in the Medical Director's Office, Middle Department, Baltimore, in 1863,[10] as Medical Inspector of the Army of the James 1864-65—and in March, 1865 he was breveted lieutenant-colonel for faithful and meritorious services. On the night of 14 April 1865 crises were precipitated both at Ford's Theater and, by a confederate of John Wilkes Booth, at the residence of the Secretary of State, William Henry Seward; Woodhull was one of the Army surgeons detailed to attend Seward after the attempted assassination, and he was relieved from this duty only on 17 June.[11] It was in the same year that at the Army Medical Museum "he made one of the brilliant group which included Woodward, Otis, Billings and Edward Curtis"[12] and prepared the *Catalogue of the Surgical Section of the United States Army Medical Museum* (Washington, GPO, 1866).

[6] National Archives, Old Army Section, *War Department, AGO, Record of Medical Officers,* RG-94, Alfred A. Woodhull.

[7] National Archives, Old Army Section, *War Department, SGO, Letter Book No. 28,* p. 388, copy of letter from L. A. Edwards, SGO, to Dr. A. A. Woodhull, Act. Asst. Surg., Present, 29 August 1861.

[8] Garrison, *John Shaw Billings,* p. 131.

[9] Louis C. Duncan quotes recollections by him on pp. 454-6 of the article "The bloodiest day in American history—Antietam," *Military Surgeon,* 1913, *32.*

[10] His above-mentioned file at the National Archives, Old Army Section.

[11] National Archives, Old Army Section, *War Department, SGO, Letter Book No. 11, Military,* p. 268, copy of letter from C. H. Crane, SGO, to Asst. Surg. A. A. Woodhull, 17 June 1865.

[12] Garrison, obituary, p. 711.

Here then, as the two met in almost daily contact, were forged those bonds of friendship between him and John Shaw Billings which were never loosened even through long periods of separation. The latter's record book of letters sent and received 1867-68[13] lists fifteen sent to Woodhull from 30 August 1867 to 3 July 1868 and ten received from him from 6 May 1868 to 16 July 1868. The subjects, in Billings's succinct summary, included "variations on the theme of Smokey Chimney," "telling him not to hurry himself," "about having had new teeth," "growling about Satterlee," and, above all, "news" and "gossip." The news was often of candidates or books while Woodhull assisted the Army Medical Board in New York, but correspondence of his in the Archives of the National Library of Medicine reveals the real depth of their friendship as he ends a letter[14] "Love Birdie[15] for me" or begins one "My dear old Fungous Fellow."[16] And it was to Billings, who had married earlier and happily, that he confided his discouragement in his own affair of the heart. Even after his engagement to Margaret Ellicott of Baltimore had been announced, there were delays over which neither of the principals had control. They had hoped for the recovery of an invalid sister in Baltimore, whose affliction proved, however, to be valvular disease of the heart.[17] His "inamorata" on one occasion "distinguished herself by a fall that resulted in a transverse fracture of the right patella beside sundry bruises: altogether creating a pretty kettle of fish."[18] On 11 May 1868, as he informed Billings, his Baltimore affair was hanging fire; both parties were willing and anxious, but the domestic complications were not clearing up as rapidly as could be desired. Later on the same day he was certain of being a bachelor until the last of June, perhaps longer. Three days afterward he expressed his regret that Billings took so blue a view of the Baltimore affair. "There is no prospect of that catastrophe. It has really been my own impatience, trying to hasten matters."

He waited six months longer, but finally on 15 December 1868 the wedding ceremony was performed at St. Luke's Church in Baltimore by the Reverend Charles W. Rankin,[19] and from his post at Fort Sanders in Wyoming Territory John Herr Frantz, friend of both Woodhull and Billings, could write to Billings on 16 January 1869,

I was somewhat surprised a short time since to receive the wedding cards of Dr. Woodhull. Good, patient, and true, his wife is to be congratulated

13 Archives, National Library of Medicine.

14 4 May 1868.

15 Mary Clare, Billings's first child, born in 1863.

16 11 September 1868.

17 Undated letter, perhaps from the spring of 1868.

18 *Ibid.*

19 *Baltimore Sun*, 16 December 1868, p. 2, col. 3. Inquiries in Baltimore have been facilitated by the kindness of Elizabeth C. Litsinger, Head, Maryland Department, Enoch Pratt Free Library, and of F. Garner Ranney, Assistant Librarian, Maryland Historical Society.

on her choice of a husband. The Doctor was one of the last men whom I would have suspected of entering the ranks of the Benedicts.[20]

Let us jump to the year 1871, when Woodhull was serving as Post Surgeon at Fort Lyon, Colorado Territory. On 18 May[21] he reported to the Surgeon General, U. S. Army, Washington, that having been granted by S. O. 83.2, Headquarters, Department of the Missouri, a leave of absence for thirty days with permission to apply for an extension of thirty days, he would depart from the post that evening and could be reached during the leave at 183 Lanvale St., Baltimore. He wrote again from Baltimore on 31 May[22] confirming that by S. O. 36.2 the leave had been extended for thirty days. On 8 June, again from 183 Lanvale St., he sent to John Shaw Billings the letter,[23] three paragraphs of which have prompted the present note.

Some months ago [he said], I wrote you asking your interest for Mr. King of Baltimore but, owing to what I shall explain, he has not yet called.

Francis T. King, of this city, is a wealthy and prominent Quaker who is a very bright light in his society and a very prominent man in business and financial circles here. One Johns Hopkins, a successful merchant, has determined to establish a free hospital (which this city does not yet possess) and has given *ten acres* in the city as a site, $250 000 as a building fund, and $2000 000 as a foundation for its support. Mr. King is one (I think the President) of the Board of Trustees, for its erection and management. Some months ago he asked me to assist him in gaining access to the Govt informn on the subject, I gave him letters of introduction to yrself & the S.G.—explaining what I have here said and also wrote you privately, as you may or may not remember. He has not presented these letters because there has been a long fight in the City Council about closing the streets running through the site, and the Trustees did cd. take no active steps while this was going on. As Mr. K. remarked, he didn't want to interest prominent people in a matter that might lie in abeyance for a long time. But now that it is substantially settled he wants to see and talk to you about it. In the meantime, however, he has been very much employed in acquiring information on the subject and has visited all the new hospitals erected or going up in the east. Of course the actual construction will be in chg.

left to a special Comtee & competent architects—but he proposes to exercise an intelligent supervision over the whole. I think it will be a deserved and well-bestowed gift to send him a copy of yr. Circular—the address simply Baltimore will be enough. He is away from the city on business now, but has asked me to go with him to Washington on his return next week or the week after, and I will if I can. If I should not be with him, I beg that you will show him every official attention and you may be assured that you will find him an intelligent and appreciative listener to what you may have to say.

He has already a tendency toward the *temporary* plan, and a little talk-
may
ing will give him an additional impetus that way.

[20] Archives, National Library of Medicine.
[21] Letter in his file at the National Archives, Old Army Section.
[22] Letter in his file at the National Archives, Old Army Section.
[23] Archives, National Library of Medicine.

The importance of the letter is at once apparent, and readers will bear in mind that it was not Woodhull's first letter to Billings on the subject; that first letter, dating perhaps from early in 1871, has not come to light in the Archives of the National Library of Medicine. Billings' reputation as an authority on hospital construction was already established in 1870, as has been stated, by his survey of the Marine Hospital Service and his report on Army Barracks and Hospitals. It was the most natural thing in the world that his old and dear friend, hearing in Baltimore of events in the making, should notify him at once. This was very early in the conception of the Johns Hopkins Hospital. Bills authorizing the formation of two corporations, the Johns Hopkins Hospital and the Johns Hopkins University, were introduced into the General Assembly of Maryland in January, 1867; these bills were passed, the charters were granted, and in August, 1867, the certificate of incorporation of the Hospital was signed. This document carried the names, headed by Francis T. King, of the original twelve Trustees, but these trustees did not meet until 1870, when they organized their board and elected Mr. King president. Their second meeting did not take place until 1 March 1873, when they received from Johns Hopkins the deed for the property on which the Hospital was to be built. Mr. King meanwhile, as Woodhull's letter shows, had already begun the devoted work on behalf of the Hospital which never lapsed to the time of his death in 1891.

As an Army surgeon, a friend of Billings, and one who knew Baltimore well Woodhull could not have failed to take an extraordinary interest in the Hospital. But the final link is simple when we remember that his wife was an Ellicott. Among the fifteen children of Elias Ellicott (1759-1827) and Mary Thomas Ellicott were Tacy Ellicott (1795-1872) and Elias Ellicott II,[24] the father of Margaret Ellicott Woodhull. Tacy Ellicott, aunt to Margaret, married in 1817 Joseph King, Jr., who had come to this country from Newcastle-on-Tyne. One of their five children was Francis T. King. We are scarcely forcing the evidence to conclude that Margaret and her husband would have heard much at an early date from her cousin Francis concerning the projected Johns Hopkins Hospital. Billings's reputation was such that he would have been consulted in any event on plans for the buildings, but it is due to Alfred Alexander Woodhull that the project was known to him, and probably studied by him, at least four full years before he was officially invited to submit his suggestions.

The rest of the story has been often told, and never better than by Dean Chesney in the above-mentioned history of the Hospital.[25] On 5 March 1875 Mr. King wrote to five authorities on hospital construction in different parts of the country,

[24] *Biographical and historical accounts of the Fox, Ellicott, and Evans families,* collected and compiled by Charles W. Evans. Buffalo, 1882, pp. 51 ff.

[25] Pp. 21-24.

acquainting them with the nature and approximate amount of the bequest to the Hospital, enclosed a copy of the letter of instructions from the founder, and invited the persons addressed to submit such suggestions and advice as might seem proper to them. . . . The replies to Mr. King's letter were all in hand by November of that same year (1875) and the Trustees of the Hospital voted that 1000 copies of these essays be printed for sale and distribution otherwise. . . . *After some re-casting and editing by Dr. Billings*[26] the five essays were published in book form and at once attracted wide-spread attention and comment.

Billings's essay ran to forty-six printed pages and

gave every evidence of the most careful thought on the part of the author.[26] It also revealed his wide knowledge of hospital construction and his interest in medical education. It is not surprising, therefore, that the members of the Building Committee of the Trustees were attracted to this man, and that on 28 June 1876, they should recommend to their colleagues on the Board that he be employed to supervise the construction of the Hospital. . . . Dr. Billings entered upon his duties in connection with the Hospital on July 1, 1876.

The Hospital was opened on 7 May 1889. Billings continued his labors at the Library of the Surgeon General's Office and then at the Department of Hygiene of the University of Pennsylvania and the New York Public Library, while Alfred Alexander Woodhull served the Surgeon General's Office the country over and advanced in grade from major (1876) to lieutenant-colonel and deputy surgeon-general (1894) and to colonel and assistant surgeon-general (1900). In 1886-90 he taught military hygiene at the Infantry and Cavalry School at Fort Leavenworth, Kansas; in 1892-95 he commanded the Army and Navy Hospital at Hot Springs, Arkansas; in 1895 he became Medical Director of the Department of the Colorado; and in 1899 he was detailed Chief Surgeon of the Department of the Pacific at Manila, Philippine Islands. From April 1900 to April 1901 he was in charge of the Museum and Library Division, Surgeon General's Office. He was retired in 1901 and in 1904 received the grade of brigadier-general on the retired list. From 1902-07 he was lecturer on personal hygiene and general sanitation at Princeton University. His publications include *A Medical Report upon the Uniform and Clothing of the Soldiers of the United States Army* (1868), papers on ipecacuanha (1875), *Quarter Century Report of the Class of 1856 of the College of New Jersey* (1881), *Provisional Manual for Exercise of Company Bearers and Hospital Corps* (1889), *Notes on Military Hygiene, for Officers of the Line* (1890 and later editions), *Personal Hygiene, Designed for Undergraduates* (1906), and *The Battle of Princeton* (1913). In all this service and all these years he could have seen John Shaw Billings little, yet whoever reads his restrained but intensely moving obituary of his friend will be aware of the deep affection which joined them to the end.[27] He survived Billings by eight years.

[26] Italics added.

[27] See also his letter to Billings on the opening of the New York Public Library in Garrison, *John Shaw Billings*, pp. 394-5.

Harold Wellington Jones, 1877-1958

Happy the man who, his active service ended, can withdraw in reliable health to the special satisfactions which an honored retirement brings.

This privilege was accorded for a decade and more, until 5 April 1958, to Colonel Harold Wellington Jones, M.C., U.S.A., who concluded in 1945 his tour of duty at what was then the Army Medical Library. The active service with the Army had begun in 1906 after a degree at Harvard University and some years in private practice; it stretched from the Philippines to France, from Mexico to Malaya, and in 1936, still active, was transmuted from specialization in surgery and hospital administration to the resolute reshaping of a great medical library.

The full career of Colonel Jones will be recorded elsewhere.[1] His contributions to the history of medicine came late. The first publications by him in any field appeared in 1904; they dealt then, and continued to deal down through the years, mainly with matters of current interest in surgery and military medicine. It was only when he found himself surrounded by the medical monuments of the past that he was fully able to indulge the historical interest which must always have been latent in him. From 1936 on, the articles, notes, and reviews on historical subjects were frequent—on the earlier days of the Army Medical Library, on its treasured manuscript of Sir Charles Bell's engravings of the arteries, on the Faculty of Medicine at Paris, on John Graunt and Thomas Sydenham and Alexis St. Martin and Florence Nightingale, on medical caricatures. They breathed forth an air of vividness and immediacy which was an attribute of the man himself and which is present also in the musings which he collected under the title *Green Fields and Golden Apples* (Baltimore, 1942). Not least among his historical contributions was the emphasis which as editor of *Blakiston's New Gould Medical Dictionary* (Philadelphia, 1949) he gave to eponyms in that publication.

But it is likely that posterity will prefer to record as his greatest service to our understanding of the past the segregation of the historical items in the Army Medical Library and the installation within the Library's structure of a unit designed to care for them properly, to restore them physically, to catalogue them fully, to make their contents available to historians throughout the world, and to swell their numbers as budget and circumstances might permit. The chronicle of this unit will also be set down elsewhere, since it is part and parcel of the history of the National Library of Medicine. Suffice it to say in epitome here that Colonel Jones, in the words of the present Director of the Library, "was an able surgeon and an administrator of vision and courage; he was the begetter of the Library's renaissance."

[1] See e.g. the obituaries from the National Library of Medicine and from Colonel A. G. Love, M.C., U.S.A., which Senator Lister Hill inserted in the *Congressional Record*—Senate, 19 May 1958, p. 8008.

Appointment of Dr. Kenneth D. Keele at Yale

The Department of the History of Medicine at Yale University is most fortunate to have Dr. Kenneth D. Keele, F.R.C.P., Consultant Physician to the Ashford and Staines Hospitals, Middlesex, England, as Visiting Professor of the History of Medicine from 1 October through 31 December 1958. Dr. Keele is Honorary Secretary of the History of Medicine Section of the Royal Society of Medicine.

In addition to papers in the field of internal medicine, Dr. Keele has contributed a number to historical journals including several on Leonardo da Vinci. His most recent paper was published in *Medical History* and bears the title "William Harvey: The Man and the College of Physicians" (1957, *1*, 265-78). Readers of this Journal may be familiar also with his books, *Leonardo da Vinci on the Movement of the Heart and Blood* (1952) and *Anatomies of Pain* (1957). He has chosen for the general theme of his weekly lectures at Yale "The History of Medical Research."

Cohen of Birkenhead's Maiden Speech before the House of Lords

Sir Henry Cohen, as he was known after he had been created Knight in 1949, was elevated to a Barony as "Cohen of Birkenhead" in the Birthday Honours of 1956. His maiden speech before the House of Lords was delivered a year later in response to a motion (presented by "the noble and gallant" Lord Dowding) that Her Majesty's Government institute an inquiry regarding painful experiments on animals. We print portions of Lord Cohen's forthright rejoinder as it is recorded in Hansard's *Official Report of Parliamentary Debates, House of Lords*, for Thursday, 18 July 1957 (Vol. 204, No. 92, pages 1346-54).* Lord Dowding's address and the spirited debate which followed Lord Cohen's rejoinder can also be read in the *Official Report*. Clearly vivisection is still a burning issue in England as in America.

2:50 P.M.

Lord COHEN of BIRKENHEAD: My Lords, I confess to having reflected during the past few minutes on the appositeness of delivering a maiden speech on a Motion dealing with painful experiments on animals, and I can but hope that this Motion has in that respect no sinister forebodings. As your Lordships will have gathered from the speech of the noble and gallant Lord, there are few topics which arouse deeper emotions than that of vivisection. Yet there are few which are more pregnant with decisions which affect the welfare of mankind. None who have listened to the noble and gallant Lord this afternoon can doubt the sincerity or fail to respect the sincerity of his declared convictions. But the intensity of feeling with which assertions are made is not necessarily proof of their

* Readers will find Lord Cohen's views expressed also in *Some reflections on animal experiments; being the Paget Memorial Lecture, 1957 of the Research Defence Society*, delivered by the Rt. Hon. The Lord Cohen of Birkenhead on 28th November 1957 (London, 1957, 15 pp., Conquest Pamphlet no. 4).

validity. It does not exempt us from examining them on the basis of the available evidence.

The noble Lord has said that what is said in this House goes well beyond the House. It is for that reason that I want to apply myself to three questions which are frequently confused. The first is: has animal experiment led to knowledge which has helped to alleviate suffering, eradicate disease and save human life? The noble Lord has said that even if this were proved, he would still not approve of animal experimentation. But I think we must have an answer to that question, and I hope to be able to demonstrate to your Lordships that there is an overwhelmingly affirmative answer to it which only the woefully ignorant or the wilfully blind will fail to recognise.

The noble and gallant Lord spoke of "so-called therapeutic substances". What are these "so-called therapeutic substances" which have been discovered as the result of animal experimentation, which are standardised and purified by animal experimentation? Let us take first what the noble and gallant Lord referred to in his speech in October, 1952—vaccines and sera. . . . In the South African War, the incidence of typhoid fever was 105 per 1,000 combatants, and the death rate was 40.6 per 1,000. In other words, almost half those who were infected died. Because of the efforts of Sir Almroth Wright, in the First World War the incidence of typhoid fever was 2.35 per 1,000—that is, 45 times less than had been the incidence in the South African war—and the death rate 0.14, which was 300 times less. And that was an expression of the use of prophylactic vaccine.

To bring the matter up to date, many of your Lordships will know that there has been a striking decline both in the incidence and in the death rate from diphtheria in this country during the last ten to fourteen years. Before that time we had a method which was partially successful in overcoming the most dire effects of diphtheria. Yet, despite the use of anti-toxin, the notifications of diphtheria in this country annually for the period 1932 to 1942 averaged 55,125, and of those cases, 2,783 died. Then came the public campaign for active diphtheria immunisation and gradually, with a widening of immunisation, the incidence declined. The last figures which I have are those for 1955, and in that year, as compared with an annual incidence of diphtheria in this country of over 55,000 per annum, there were 155 notified cases of diphtheria. Compared with 2,783 deaths annually from diphtheria there were, in 1955, thirteen deaths of which ten occurred in children under the age of fifteen. Of those ten, nine had not been immunised and one had been immunised over ten years previously.

It is, therefore, I suggest to your Lordships, fair to assume that in that period of ten years we have saved by active diphtheria immunisation alone at least 25,000 lives, all of which can be laid at the door of those who experimented with animals in order to demonstrate the effectiveness of this method of immunisation. In view of the age group which is involved in diphtheria, I believe firmly that we can hardly measure in terms of human suffering the saving in this country. Those who have had an only child who has succumbed to diphtheria know what human happiness has been lost. . . .

It is only in the last twenty years that drugs have become available to combat many of the common infections which assail the inhabitants of this country. The two main groups of drugs are the sulpha drugs and

the antibiotics of which penicillin was the prototype. Now we have at our hand methods whereby we can control and eradicate most of the common infections which afflict mankind. Let me again give your Lordships two or three examples. One of the most tragic diseases which we saw, particularly during the First World War, was cerebro-spinal meningitis. In the American Civil War the death rate from cerebro-spinal meningitis was 90 per cent. In the First World War, as a result of the production of anti-meningococcal serum, the death rate was reduced to 30 per cent. During the Second World War, as a result of the exhibition of sulpha drugs, the death rate was reduced to 3 per cent, and in many epidemics was much smaller. Childbed fever or puerperal sepsis, as it is called, showed a distinct decline with the introduction of the sulpha drugs. The incidence was about 50 per cent of what it had been previously, and with the introduction of penicillin, the incidence was one-tenth of what it had been previously. . . .

The noble Lord did not mention insulin this afternoon, though he referred to it, and to its convulsive effects, in his last speech to your Lordships. Insulin, however, is *par excellence* a discovery which owes everything to animal experiment. With insulin came the first of the great conquests of disease in the field of the internal secretory glands. Insulin is used for the control of diabetic myelitis [*sic*]. What was the expectation of life of a diabetic child of ten before the days of insulin? It was a few months; to-day it is forty-five years. A man of thirty who developed diabetes before 1922 could expect to live three or four years if he underwent strict diabetic control, but to-day his expectation of life is almost normal, almost average. Translate that into terms of the saving and prolonging of human life, and what do we find? That at least 200,000 diabetics in this country have had their lives prolonged and are able to lead useful and fruitful lives in the service of the community for a period of twenty, thirty or forty years longer than they otherwise would have the opportunity of doing. . . .

I could go on reiterating in the jubilant terms of victory the triumphs of animal experimentation and the contribution it has made to human knowledge and the alleviation of human sufferings. I would but remind your Lordships that the major advances in surgery to-day; the construction of new parts of the heart, the approach to the brain, the excision of the lungs in which there is malignant disease—all these owe practically everything to the knowledge which has been gained from the animal world about the control of infection, the control of haemorrhage, the control of shock and of anaesthesia. Those who are prepared to proclaim that animal experiment should be banned must be prepared to let their fellow men suffer and succumb to diseases, the secrets of which might well yield in future to animal experiment.

I do not regard animal experiment as the exclusive method of medical investigation, but it is quite indispensable. . . . Occasionally, man himself is necessary for the crucial experiment, and man has never hesitated to become the subject of an experiment which might help his fellow men. Those who have read the history of the transmission of yellow fever and other tropical diseases will know that the very people who are alleged to exercise a wanton and cruel outlook to animals in the laboratory have themselves been prepared to sacrifice their own lives in the interests of mankind. . . .

There is one other question, the second question: is everything done to avoid pain? . . . In view of what the noble Lord said about wanton

cruelty, I must apply myself to one aspect of this problem. The poet has written:

"True it is Nature hides
Her treasures less and less; Man now presides, In power
where once he trembled in his weakness:
Science advances with gigantic strides."

And then Wordsworth asks:

"But are we aught enriched in love and meekness?"

Thirty years' close association with experimental physiologists, bacteriologists and others who seek power over nature and use animal experiments convinces me that they are enriched by their work in love and meekness and in their service to mankind; and they resent— and I use the word "resent" advisedly—any insinuations which suggest that they are callous and indifferent to suffering, wanton and cruel people, quite sadistic in their outlook. I would quote what the Royal Commission of 1912 said on this point. They said:

"We desire further to state that the harrowing descriptions and illustrations of operations inflicted on animals which are frequently circulated by post, advertisement or otherwise, are in many cases calculated to mislead the public, in so far as they suggest that the animals in question were not under an anaesthetic. To represent that animals subjected to experiments in this country are wantonly tortured would, in our opinion, be absolutely false."

Those are the words of the Royal Commission, and I gather that the noble Lord is asking for them to be repeated. We respect the noble Lord's motives. Let him respect the motives of those who undertake these experiments.

It is extremely difficult, as any of the Members of your Lordships' House who have practised the law will know, to rebut a vague charge or a non-specific indictment. If the noble Lord has specific indictments, let him utter them in the right place, and they will be met. But if he has to rely on what the window-cleaner or the butler saw, then I suspect that the evidence is not well founded. To suppose that the most shocking experiments are carried out behind closed doors is, I suggest, to impute motives to others which he would not have imputed to himself; and I suspect that as acceptable a variation of the Golden Rule as any is: Do not impute motives to others which you would not have imputed to you. The noble Lord surrounds his utterances with a number of adjectives with a great emotional content; he speaks of "revolting", of "terrifying" and of "cruel". Something may be revolting, but it may still have to be done. Anyone who has nursed, as I have nursed, certain types of patient has done things which are often revolting, but in the interests of humanity must be done. Anyone witnessing the surgeon at an operation who has not known what happens is terrified by the procedure; but it is not necessarily an inhumane procedure. . . . I am prepared in this House to say, without fear of contradiction that no wanton cruelty is inflicted on animals during the course of physiological, therapeutic, bacteriological or other scientific investigation.

There is, however, a third question to which the noble Lord referred—namely, the ethical question. On this, if I have taken down the words of the noble Lord accurately, he has made his position perfectly clear. He says: "Even should it be conclusively proved that human beings benefit

directly from the sufferings of animals, its infliction would, nevertheless, be unethical and wrong". I, and I am sure my colleagues, respect that view, although I would remind the noble Lord and Members of your Lordships' House that it is inevitable that you all benefit from animal experiments, whether you know it or not: your pure water supply, your pure food supply and the like are dependent on animal experiment. But the noble Lord must remember that there are others, and they comprise the vast majority of mankind, who conceive that man's prime duty is towards his fellow man. They deplore, as deeply as do the noble Lord, Lord Dowding, and his friends, cruelty to animals, and in this they include experiments which are unnecessary, irrelevant and unjustifiable, and any means which can be devised to ensure that such experiments are not carried out will be acceptable to them.

They believe, however, that our present law, which is much more stringent than the law of any other country in this field, satisfactorily meets, through the methods of certification, the problem of inflicting unnecessary pain. Any of your Lordships who care to go into this question will find that those methods of certification are extremely complicated and difficult, and that the safeguards of inspection make it perfectly clear that no wanton cruelty occurs. If the noble Lord wishes to bring specific instances of violation of the law, then they can be investigated; but vague charges and insinuations can never be adequately answered. My colleagues know that the Home Office exercises its statutory responsibility, with a due sense of the gravity and importance of its task, efficiently and effectively. The overwhelming majority of those who, like myself, have engaged in the practice of medicine for thirty years, and have shared in the human suffering and tragedy occasioned by disease, could not endure our daily tasks for long if we were deprived of the hope that that measure—namely, animal experiment, the monumental achievements of which in the past have solved so many of our most difficult problems—would remain. We must know that it will remain an instrument—we have established that it is an indispensable instrument—for the future. The noble Lord said that the windmill of banning animal experiments altogether was beyond the reach of his lance. My last words to-day to your Lordships are: may it ever remain so!

Vilhjalmur Stefansson

Shed a tear for the modern child, nurtured from his infant days on ubiquitous television, who can never know the thrill of that week or two in July or August, just a few short decades ago, when *Chautauqua* came to town and the town took *Chautauqua* to its heart. A rousing performance of *The Comedy of Errors,* the magician sawing the woman in half, an old-time band sounding forth *The Stars and Stripes Forever,* lecturers who told of faraway places not yet on any scheduled flight—there on a sultry summer evening in the tent beside the old high school they lifted the audience, young and old, from everyday cares to a larger and more fascinating world. And among them no one commanded more rapt attention than Vilhjalmur Stefansson when he stepped out upon the stage to recount his polar adventures and to turn back then into future explorations the funds derived from his lectures. More than one child decided at once to turn Arctic

explorer, and more than one, it may be added, marveled that on a diet of meat alone, gloriously free from the vegetables which mothers even then forced upon their children, Mr. Stefansson managed to look the very picture of health.

In the Third International Geophysical Year we have paid tribute to the expeditions of the several nations which, assisted by every device known to modern science, went forth to learn more of our earth. It is fitting that we remember also the earlier adventurers who did their work under far more primitive conditions. Mr. Stefansson during the years 1913 to 1918 explored vast regions north of the Arctic circle, accompanied by only two or three companions; for months at a time they sledged over moving ice, and they lived almost exclusively by hunting. His expeditions before and after those years, in Iceland or Alaska or Canada, were similar, and from them all he contributed largely to our knowledge of the economic value of the Arctic regions, of the ethnology of their peoples, and of the best equipment with which to meet in safety and health their challenge. It is in the final analysis the work of these earlier men which has made possible a Third International Geophysical Year.

Mr. Stefansson celebrates on 3 November his seventy-ninth birthday. Recently he requested a reprint of the paper, "A Trip to Bohol in Quest of *Tarsius,*" which the Editor of this Journal published in 1939 in the *Yale Journal of Biology and Medicine (11,* 561-73, 5 pl.) A reprint was found and sent. With the thought that the author's inscription will give pleasure to medical historians as it did to the grand old Viking in whose honor it was composed its text is printed here.

To Vilhjalmur Stefansson of Order *Primata,* an Old World *Catarrhine* of Family 4, and an unparalleled example of a commanding Variety of The Catarrhines, Species *Hominidae;* being thus in direct descent from Suborder I of *Tarsioidiae,* protosimians, dating from the first Eocene mammals (Tertiary Cenozoic), which hopped about this Earth catching insects and worms (especially "meal worms"), also small lizards, fish, and birds' eggs—and which still exist on Bohol and a few other jungle islands of that area, as "living fossils"—some 55 million years ago, SALUTE!

Centenary of Joseph François Félix Babinski (1857-1932)

The *Newsletter* of the American Academy of Neurology for July, 1958, carries a notice of the "centenary" observances which were held at Paris in June to honor the 101st birthday of the great Polish clinical neurologist, Joseph F. F. Babinski. By generous permission of the President of the Academy, Dr. Francis M. Forster, the *Journal* quotes a portion from this notice and summarizes the remainder.

On June 2 in Paris, during the investiture of General Charles de Gaulle, while mobile units of helmeted military police cruised the streets and concentrated around the Palais Bourbon, the Champs Élysées, and on the left bank of the Seine, neurologists from many lands quietly assembled at

the Hospital of the Salpêtrière to celebrate the centenary of Joseph Babinski (1857-1932). A delegate from the Municipal Council of Paris opened the inaugural sessions in the amphithéâtre of the École des Infirmières of the Salpêtrière, where in 1882 the world's first university chair in neurology was created for J. M. Charcot. After the opening remarks, there were presentations by Professor Raymond Garcin, President of the French Neurological Society, on "Babinski and his Work"; by Sir Francis Walshe (London), on "Where to Place Babinski in Modern Neurology"; and by Professor J. Chorobski (Warsaw), who spoke on behalf of the Polish Society of Neurology. During the afternoon, 18 delegates of national neurologic societies in different countries individually paid solemn homage to the memory of Babinski. The centenary was concluded with a stirring eulogy by Auguste Tournay on "Babinski in Life."

The representative of the United States at these observances was Pearce Bailey, Director, National Institute of Neurological Diseases and Blindness. On 3 June the celebrations were continued as the French Neurological Society conducted its 22d International Neurological Reunion at the Salpêtrière. The morning sessions were devoted to a symposium on the cerebellum, the afternoon sessions to 22 individual communications on the same subject, a subject on which Babinski had published extensive original studies. On 4 June the International Reunion assembled for a day of free communications, with an interruption at 11:30 a.m. for a convocation at the Hôpital de la Pitié to affix a medallion of Babinski to the outside wall of his old neurological service (Le Pavillon Benjamin Dalessert). These ceremonies were conducted by A. Tournay, who espied and singled out from the audience Mlle. Alips, who had been Babinski's faithful and devoted chief nurse. An official luncheon and a gala banquet were other events of the day.

It may be of interest to summarize very briefly here the importance of Babinski's work. He brought his vast knowledge of the functions of the central nervous system to bear on almost every phase of clinical neurology,[1] but he is undoubtedly best known for two great contributions, one having to do with altered reflexes, the other with disturbed endocrine balance of central nervous origin (hypothalamic).

To the first the eponym *Signs of Babinski* has been attached. Studies on the signs and symptoms of damage to the descending motor pathways from neocortex led Babinski to recognize the constant occurrence of certain abnormal plantar reactions characterized by "up-going" of the toes when the sole of the foot is stroked gently with a sharp object; this pathological reflex, now universally known as "The sign of Babinski," was described in a two-page note entitled "Sur le réflexe cutané plantaire dans certaines affections organiques du système nerveux central."[2] This was followed two years later by a more detailed account, "Du phénomène des

[1] For early papers see *Exposé des travaux scientifiques du Dr. J. Babinski*, Paris, Masson, 1913, 234 pp.

[2] *Compt. rend. Soc. Biol.*, Paris, 1896, 9 sér., *3*, 207-8.

orteils et de sa valeur séméiologique."[3] A description of the other plantar reflex of toe abduction, the so-called *signe de l'éventail* or "Fanning sign of Babinski," appeared after an interval of five years in a paper entitled "De l'abduction des orteils."[4] His famous teleological résumé "Réflexes de défense" appeared in 1922.[5]

The second great contribution of Babinski concerns the *adiposo-genital syndrome.* It is often forgotten that a year prior to Alfred Fröhlich's paper[6] of 1901 describing a case of adiposo-genital dystrophy, with autopsy showing a pituitary tumor without acromegaly, Babinski[7] had published a case report on the same syndrome quite independently and without knowledge of Fröhlich's patient. Like Fröhlich, however, and also like Harvey Cushing[8] in 1906, he believed, in view of the large tumor of the pituitary gland found in all three of his cases, that the presenting symptoms of adiposity and sexual infantilism were due primarily to pituitary destruction and not to involvement of the base of the brain. Indeed, it was not until some thirty years later, in 1921, that Percival Bailey and Frederick Bremer,[9] proved conclusively in animals that adiposity and genital dystrophy could be induced by lesions strictly limited to the hypothalamic region at the base of the brain and without injury to the pituitary. It was as a result of this demonstration that the importance of the hypothalamus came to be recognized.

J. F. F.

In Memoriam: John Joyce Keevil, 1901-1957, D.S.O., M.A., M.D. Camb., D.T.M. & H., F.S.A., F.R. Hist. S., J.P.

Readers of the *Journal of the History of Medicine and Allied Sciences* will learn with regret of the death of Dr. J. J. Keevil, sometime Librarian of the Royal College of Physicians, author of several admirable books, and a frequent contributor to this and other learned journals. Those who knew and loved John Keevil will mourn him as a friend.

He was the gentlest of men. Slight of stature, delicate of hand, light of step, in all things neat and precise, he had a natural elegance, easy and unaffected, that distinguished him always, in whatever company he found himself. I remember with what surprise I first discovered—he was giving me sherry at the Athenaeum—that he had spent many years in the Royal

3 *Semaine méd.*, 1898, *18*, 321-2.

4 *Rev. neurol.*, 1903, *11*, 728-9, 1205-6.

5 *Brain*, 1922, *41*, 148-84.

6 "Ein Fall von Tumor der Hypophysis cerebri ohne Akromegalie," *Wien. klin. Rdsch.*, 1901, *15*, 883-6, 906-8. The condition is commonly called Fröhlich's Syndrome. The paper was reprinted (in German) in *Res. Pub. Ass. nerv. men. Dis., The hypothalamus*, 1940, *20*, xvi-xxviii.

7 "Tumeur du corps pituitaire sans acromégalie et avec arrêt de développement des organes génitaux," *Rev. neurol.*, Paris, 1900, *8*, 531-3.

8 "Sexual infantilism with optic atrophy in cases of tumor affecting the hypophysis cerebri," *J. Nerv. Ment. Dis.*, 1906, *33*, 704-16. Cushing had seen his first case in December, 1901, but failed to recognize the cause of the patient's symptoms prior to autopsy.

9 *Endocrinology*, 1921, *5*, 761-2.

Navy and had known rough and ready, downright men in every corner of the world. He was downright enough himself, in the sense that his refinement was not at all factitious and was clearly the consequence of strong convictions and well marked tastes. It was something positive and firm, the spontaneous expression of a scholarly, fastidious mind, which did not hide from or ignore but instinctively rejected whatever was unmannerly, clumsy, slipshod, pretentious, or cruel. With all this, and the feeling he gave one, quite without censoriousness, that the second-rate would not do, he was extraordinarily kind and would put himself out to serve his friends with unsparing generosity of time and trouble. Additional signs that the finest discrimination did not reflect any narrowness of interests or drying up of human sympathies may be found in his books and papers. He was well aware of "trends" and "forces" and "the climate of opinion" and all the rest of it, but he was chiefly interested in people.

People of every sort and condition, half obscured by time and neglect, he restored to history's stage by careful scholarship; if they were chosen for their significance to the history of medicine, they were also shown to have existed in their own right and not merely as human items in a catalogue of "contributions" and "contributors." In point of fact many of them were, and remain, a little obscure. Keevil was not much attracted by the great, largely, I think, because he considered that greatness is seldom achieved without a certain hardness of soul and harshness of fibre, a marking down of distant objects and a sacrifice of common values on the way. What he had to say in this connection was never sour or silly. He acknowledged greatness freely wherever he came upon it and he added nothing at all to the literature of denigration, but no man suffered less from Bonapartism or kindred delusions. His instinct was to dwell on the lives and works of the all but forgotten who ought to be remembered, a form of enterprise that would have charmed Sir Thomas Browne or the author of "An Alabama Student." His essays in this kind, of which the most considerable are his delightful books on the Hamey family, are not the rummagings of an antiquary in the bric-a-brac of attics. He had an eye for the meaningful as well as for the picturesque and the pleasing. He taught us much that nobody else could teach, and in his concentration on peripheral matters he never failed to relate them to the core of medical, political, or social history. Moreover, he helped to show us what medicine and surgery were like in the main, since he turned away more often than not from the highest peaks of achievement.

John Keevil was a sound scholar and in the greater part of his work he drew upon archival material, little known or imperfectly studied. He wrote well, with the same ease, the same plain elegance and straightforward charm, and with an occasional touch of the same quiet humour that characterized his talk; yet his style was by no means colloquial or conversational, for he valued a simple formality in prose as in life. He was a miniature painter of no little skill, but he could also conceive and execute

historical works on a larger scale. It is good to know that before his death he completed the second volume of his history of medicine in the British navy, a book he was ideally qualified to write, but we are all of us the poorer that fortune did not permit him to fill out a shelf with the solid, readable, useful volumes that his talents promised to create for us. He was not a profound or a strikingly original historian, but in his kind he was unique.

The letters Keevil wrote toward the end of his life were touched with melancholy. He bore the misfortunes of ill health and a rather thin purse with remarkable equanimity, but the changing face of England and the disappearance or violation of much that he had cherished in his Sussex village and farther afield saddened him more and more. He thought he saw the vulgar and the meretricious gaining fresh triumphs everywhere. In spite of this, he worked on. He was never tempted to yield, for he realized that men of his own conservative cast of mind, enamoured of all the best that has been and that is, possessing small enthusiasm for clouded visions of a larger future, have always seen portents of evil crowding thick around them. Knowing this, he kept his sense of humour and his sense of proportion, both being intimately linked with his sense of history.

John Keevil died too soon. More, I think, than some of the men who once played larger roles in the public eye, he will be lastingly missed.

LLOYD G. STEVENSON

[The professional career of John Keevil as naval surgeon and Keeper of the Library at the Royal College of Physicians has been described in an appreciation by William R. LeFanu in the *Annals of the Royal College of Surgeons of England,* 1958, 22, 148. Ed.]

Harveian Oration—1959

At the annual meeting of the Royal College of Physicians, London, held on 3 July 1958, it was announced that Sir Russell Brain, *Bart.,* past president of the College, had been appointed Harveian Orator for 1959. The Lectureship was originally founded by Harvey himself in 1656, the year prior to his death, through a gift of land to the College of Physicians. It is perhaps of interest to note that as of 1957, 253 Orators have been appointed, a few of whom failed to fulfill their obligation; of this number the orations of 159 were actually published. Sir Geoffrey Keynes, bibliographer of William Harvey and author of a book on his portraits, is to give the Oration in 1958. Sir Russell's discourse will mark the 303d anniversary of this historic lectureship.

J. F. F.

The History of Medicine in Eastern Europe

This department gladly accedes to the request of George Rosen that readers be reminded of the services of the *Current List of Medical Literature* in providing references to historical articles which appear in Eastern

Europe. The *Current List* is a monthly publication of the National Library of Medicine, each regular number of which contains a register of articles, a subject index, and an author index. The issue for January, 1958, carried a 20-page list of the journals which are regularly indexed. Journals published in the U.S.S.R. and other countries of Eastern Europe are included, and historical articles are indexed with those on current medicine. All items indexed are available at the National Library of Medicine.

Also helpful to historians will be the new *Guide to Russian Medical Literature,* which was edited by Scott Adams and Frank B. Rogers and published in September as Public Health Service Publication No. 602. This includes an article on Russian medicine from Western language sources by Estelle Brodman; on Russian medicine from Russian language sources by Galina Zarechnak; on Russian literature in translation by Scott Adams; on the procurement of Russian medical literature by Samuel Lazerow; on medical bibliography by Khristo Trenkov, translated by Stanley Jablonski; on medical libraries in the U.S.S.R. by L. Ia. Basias, translated and abridged by Scott Adams; and on the medical press in the U.S.S.R. by T. F. Makarova, translated by Galina Zarechnak. There is in addition a list of selected Russian serial titles, compiled by Etta Christiansen Bachrach.

New History of Science Chair at Yale

On 9 June 1958, the authorities of Yale University, through Professor George W. Pierson, chairman of the Department of History, announced that President A. Whitney Griswold and the Yale Corporation have authorized the creation of a new chair of the History of Science to be attached to the History Department. It was also announced that Donald Harnish Fleming, Chairman of the Department of History of Brown University, has been appointed to occupy the new chair as from 1 July 1958, with leave of absence for the academic year 1958-1959, during which time he will fulfill a previous engagement as Visiting Professor of History at Harvard. The Editors of this Journal congratulate the members of the Yale Department of History on their vision in creating a chair of the History of Science at this time in recognition of the important rôle which the sciences, both physical and biological, now play in world affairs.

J. F. F.

Library of José Joaquin Izquierdo—"Hemero-Bibliotheca"

On 23 June 1958, Professor J. J. Izquierdo, the eminent Mexican physiologist who has long been known to his close friends as an avid book-collector and humanist, was host at a formal opening of a large library in the Department of Physiology of the University of Mexico devoted to the history of physiology, biochemistry, and pharmacology. He himself has been largely responsible for bringing this library together. The collection, which is to be known by the name "Hemero-Bibliotheca," is made up of

approximately 5,500 volumes of which 3,500 are periodicals, the remaining 2,000 items consisting of books and papers devoted to the history and philosophy of science—which, of course, includes physiology. A full-time librarian, Mrs. Aurora Meyer de Rangel, is in charge and is directly responsible to Dr. Izquierdo. Mrs. de Rangel is compiling a complete catalogue of all the holdings of "Hemero-Bibliotheca," which is to be published.

Attention may be directed also to the published bibliography (1955) of Professor Izquierdo which appeared under the title: *Solicitud y curriculum vitae del Professor Doctor José Joaquin Izquierdo presentados para optar a la calegória de Profesor Universitario de tiempo completo. . . .* This is an attractively printed brochure of 64 pages which includes a listing of 247 titles of Professor Izquierdo's published papers to mid-year 1955 and a further group of 155 titles of reviews and editorials, followed by a final list (pages 63-4) of Honors and Society memberships.

Readers of the *Journal* will also be interested in Professor Izquierdo's latest article, "La medicina Hipocrática y los Hipocratistas de Mexico" *(Gaceta méd. México,* June 1958, *88,* 359-72), in which he examines early publications on Hippocrates issued in Mexico City by Luis José Montaña (1755-1820) and Manuel Carpio (1791-1860). J. F. F.

Dexter Award in the History of Chemistry to Eva V. Armstrong

On 9 September 1958, at the annual convention of the American Chemical Society in Chicago, the Dexter Award was presented to Miss Eva V. Armstrong, former curator of the Edgar Fahs Smith Memorial Library, University of Pennsylvania.

This prize of $500 was established by the Dexter Chemical Corporation to recognize "noteworthy contributions to the advancement of the history of chemistry." It goes fittingly to Miss Armstrong, who first as secretary to Dr. Smith and then, after his death in 1931, as curator of the collection formally established by his widow, worked tirelessly to build the collection into one of the finest libraries in the world in the history of chemistry. During this period she assisted historians the world over in gathering historical data for various research projects. Author of many publications, she was influential in planning and establishing *Chymia,* an international organ devoted to the history of chemistry and originally sponsored by the Smith Collection. Miss Armstrong belongs to that original group of dedicated men and women who did so much to stimulate the history of chemistry in this country, and historians will rejoice in the recognition accorded her by this award.

Tribute to J. Menzies Campbell and the History of Dentistry

At a ceremony held on 18 July 1958 in the Great Hall of the Royal College of Surgeons of England, Dr. J. Menzies Campbell, F.R.S.E. (Honorary Member, The American Academy of the History of Dentistry). of

Glasgow, was admitted, with Sir Henry Souttar and Mr. Ralph E. Huffam, an Honorary Fellow in Dental Surgery in recognition of his work as dental historian. These are the first three Honorary Fellows to be admitted under the new Charter, which stipulates that the total number of this class of Fellows shall not exceed fifteen.

AMERICAN ASSOCIATION FOR THE HISTORY OF MEDICINE
Thirty-Second Annual Meeting: Cleveland, 21-23 May 1959

The Thirty-second Annual Meeting of the American Association for the History of Medicine will be held in Cleveland, Ohio, 21-23 May 1959. The Association's hosts will be the Cleveland Medical Library Association, the Cleveland Health Museum, and the Handerson Medical History Society. Dr. Bruno Gebbard is chairman of the Committee for Local Arrangements. The Wade Park Manor will be the headquarters hotel. The Berea Bach Festival at Baldwin-Wallace College has invited the members of the Association to be guests at the performance of the B Minor Mass on Saturday, 23 May.

Members who wish to present papers are asked to send an abstract of not less than five hundred words to the Chairman of the Program Committee, Elizabeth H. Thomson (Department of the History of Medicine, 333 Cedar Street, New Haven 11, Connecticut), no later than 1 March 1959.

Book Reviews

J. J. KEEVIL. *Medicine and the Navy, 1200-1900. Volume I. 1200-1649.* (With an introduction by Sir Henry Dale) Edinburgh and London, E and S Livingston, Ltd., 1957. xii, 255 pp. $8.50.

Reviewed by EBBE C. HOFF, *Dean, School of Graduate Studies, Medical College of Virginia, Richmond.*

IN his introduction to this scholarly study, Sir Henry Dale comments with some surprise that there has previously been no systematic, historical examination of the effects upon men serving at sea of diseases and injuries to which the conditions of their service, through the ages, have made them especially liable. To the task of filling this gap, so far as the English naval service is concerned, Surgeon Commander Keevil set himself. Such a history must tell of provisions made, or attempted, to prevent particular health hazards and measures for cure or mitigation of the results of special dangers to seamen. The history of naval medicine brings to light—as the present volume reveals—only too many examples of advantages which might have been achieved or loss of life or hardship that might have been prevented had there been greater awareness of hygiene and dietary needs as well as more realistic policies or attention to medical care under the special conditions of the navy. Keevil's study serves, additionally, a far broader purpose in casting new light on the growth and development of medicine generally across the ages. The author's object, in fact, has been to present the development of naval medicine in its setting of the whole of medicine. It was from civilian medicine that the traditions of medicine in the navy were drawn and it was from the civilian setting that the sea-surgeons came. The volume thus offers a comprehensive survey of the whole of English medical education and administration, methods of diagnosis and treatment, hospitals and nursing, and of the relations of these to English life as a whole.

The present volume covers the period from 1200 to the execution of Charles I in 1649. The author comments that some histories trace naval development no further back than the Commonwealth period and neglect the earlier centuries when the ships were the king's own personal possessions. This would present the Royal Navy emerging full grown as a creation of Pepys and the property of the State. It would neglect the fact that there were the king's mariners throughout the centuries and the relevancy of earlier medical care or lack of care. In the present volume, Keevil has described the conditions aboard ship in the early days and the slender provisions for medical care when they embarked under the terms of article 7 of the *Laws of Oléion.* Also included are descriptions of treatment they received and the men who gave treatment. In these descriptions, enough

of the history of the Royal Navy and of medicine in general is given to provide a broad view of the evolution of naval medicine.

As the author has said, the naval surgeon was a late arrival on the scene, and it was difficult for him to establish recognition of his value to a service that for centuries had done the best it could without him. In England, also, the history of naval medicine was complicated by the schism in the profession in the Middle Ages which gave rise to centuries of conflict between physicians and surgeons. This is why naval surgeons, for long qualified only in surgery, were often confused by the medical problems confronting them.

This volume is attractively printed and well illustrated with reproductions of historical documents and scenes. The style is engaging and there is a wealth of contemporary information, bringing the past vividly to life. The reader is given excellent references to printed and manuscript sources, and there is appended a convenient chronological table of several hundred historical items from 1133 to 1649.

Readers of this volume will regret that Commander Keevil lived only long enough to complete the first section of his work and will hope that his unpublished material may be brought to completion.

LORD COHEN OF BIRKENHEAD. *Sherrington: Physiologist, Philosopher and Poet.* The IVth Sherrington Biennial Lecture of The University of Liverpool. Liverpool, Liverpool University Press, 1958. xiv, 108 pp.

Reviewed by THE EDITOR.

THE Rt. Hon. the Lord Cohen of Birkenhead, Professor of Medicine at the University of Liverpool, has long been an admirer of Sir Charles Sherrington, and this reviewer suspects that he is one of the few clinical neurologists who has read with sympathetic understanding nearly everything that Sir Charles had committed to paper—his scientific writings, his biographical works, and his poetry. With characteristic modesty, Cohen states in the Introduction that while he was not a pupil of Sherrington in the sense of having studied under his immediate direction, "in a very real sense he has been my master and mentor for over 30 years." The lecturer often saw Sir Charles, however, since they were fellow members of the Physiological Society, and from time to time their paths crossed on other occasions. As a clinician, Cohen felt some diffidence about 'taking on' this series of lectures, but the fact that Sherrington himself had confessed to similar misgivings when invited to give his Silliman Lectures at Yale encouraged him to accept, re-echoing Sherrington's amusing phrase: "Mais il faut de l'audace, et encore de l'audace et toujours de l'audace!"

The title of Lecture I indicates its biographical nature, "Sir Charles Sherrington, O.M., G.B.E., F.R.S., (1857-1952)." It was highly appropriate that Henry Cohen should have been chosen for the Sherrington Lectureship in Sir Charles' centenary year of 1957, since the plan envisaged

by some of his former pupils shortly after his death in 1952 of preparing a full-length biography could not be carried out, since on several occasions Sir Charles was said to have requested of his family and some of his friends that there be no formal biography. There can be no question, however, that Lord Cohen's brief and most excellent biography which forms the expanded printed version in the first Sherrington Lecture will be welcomed by physiologists and neurologists everywhere.

Lord Cohen tells the story of Sherrington's early life in Ipswich and Yarmouth, of his having been the son of a Yarmouth country doctor James Norton Sherrington who died when Charles was a young boy, and of his mother's subsequent marriage to Dr. Caleb Rose, Jr. of Ipswich. Caleb Rose was a warmhearted and sympathetic man who did much to influence Charles and his two older brothers William and George in fields of study in which he himself was interested. For Rose was an accomplished classical scholar, an authority on local Norfolk archaeology and geology, and he was likewise a lover of the arts, his house being a place where painters gathered. The Rose house was filled with drawings and landscapes by David Cox, the Cotmans (J.S., J.J., and M.E.) and others of the Norwich School. Cohen relates that one day Charles discovered an illustrated catalogue of pictures in the National Gallery at London and that this aroused his interest in this great national collection and until the end of his life, Sherrington was never so happy as when telling a distinguished foreigner of the history of individual pictures in this particular gallery. When a little older, he became a frequent visitor to the Ipswich Museum where he came to love the landscapes of Keats' friend Haydon. In later life, Sir Charles often referred to his indebtedness to his stepfather for having fostered his appreciation of the classics, of poetry, especially that of Keats, of Gothic architecture and painting. Other special interests which developed at this time lay in the history of mechanical inventions and of Darwin's concept of evolution which came to be discussed throughout the learned world within a short time after his birth.

Young Sherrington's early education was obtained at the Ipswich Grammar School which he had entered in 1871 and as a mark of the times, he was drilled in classics, languages, history and literature but he had no contact with science for, in his words, "Science was socially not quite the thing!" One of the masters now at the Ipswich School writes that the historians of Ipswich are inclined to regard as their two most distinguished 'old boys', Cardinal Wolsey, who graduated from Ipswich in 1495 and shortly thereafter became a student and later Fellow of Magdalen College, Oxford and Charles S. Sherrington who left Ipswich in the 1870's, also at a later date to become a Fellow of Magdalen.

While still at Ipswich School, Sherrington decided to follow the example of his father and step-father and go into medicine. And so, in June of 1875, he passed his preliminary examinations for membership in the Royal College of Surgeons of England and a year later, entered St. Thom-

as's Hospital, London, as a 'perpetual pupil' passing his M.R.C.S. examination in April 1878, obtaining his Fellowship in 1879. After spending a short period in Edinburgh, he went up to Cambridge as a noncollegiate student (October 1879) and in 1880 matriculated in Gonville and Caius College where, after working in physiology, he took a first class in the Natural Science Tripos in 1882. Part II was also passed with distinction in 1883 at which time he became a Student-Demonstrator in Anatomy for a brief period but in 1884 went on with his clinical studies at St. Thomas's and obtained his M.B. from Cambridge in 1885. Since Sherrington's early years have not been recorded in any other place, I have referred to Lord Cohen's account in some detail.

Sherrington's later interests and the development of the research program on the structure and function of the nervous system which occupied him for the next 70 years, and indeed until his death, are too well known to demand recounting here. Let it suffice to say he was only 12 when Fritsch and Hitzig proved the brain to be excitable by use of an electric current, and that in 1873 his friend David Ferrier proved that removal of specifically excitable motor areas resulted in paralysis of the limbs that responded when those areas were stimulated. Then came the International Medical Congress of 1881 where he saw Professor Goltz's chronically decorticated dogs which he asked for and received permission to study from the eminent German Geheimrat—and thus began one of the most fruitful careers of creative investigation in the history of scientific medicine.

SIR ZACHARY COPE, *Ed. Sidelights on the History of Medicine.* London, Butterworth and Co. (Publisher) Ltd., 1957. x, 246 pp. illus.

Reviewed by KENNETH D. KEELE, *Consultant Physician, Ashford Hospital, Middlesex, England.*

THIS book consists of a selection from contributions to the history of medicine made at the Royal Society of Medicine, and produced to celebrate the Jubilee of that Society, all the papers having been delivered in the last 50 years. The selection and editing of Sir Zachary Cope has produced a worthy picture of the activities carried on through these years in the History of Medicine Section of the Royal Society of Medicine. The subject matter, arranged to cast a sidelight on each of the main periods of medical development in sequence, is prefaced by a lively paper from the late Sir St. Clair Thomson on the Need for the Study of the History of Medicine, in which he gives 13 good reasons for pursuing the subject in modern times. We are then treated to illuminating glimpses of Ancient Egyptian Anatomy by Prof. A. J. E. Cave, Greek Medical Etiquette by W. H. S. Jones, and the Medical Aspects of the Medieval Monastery in England, by the late Percy Fleming. These are but the hors d'oeuvres to 23 papers, which although they vary much in subject and viewpoint possess in common a lively interest designed to appeal to all branches of the

profession. Thus, separating from the series one paper rather than another is an exposure of one's personal outlook rather than a verdict on merit.

For physicians one of the most stimulating papers is that by Dr. A. P. Cawadias on The Royal College of Physicians of London, on the Occasion of its Recent Bombing, which opens with the words: "One night in November 1940, a high explosive bomb fell through the skylight in the library of the Royal College of Physicians. . . ." This bomb provided a stimulus to history, drawing attention to what had been for decades nonchalantly assumed. It leads Dr. Cawadias to an enquiry into the developing powers of Colleges of Physicians, their spread from Italy throughout Europe to Edinburgh, with particular reference to the growth of the College in London, the narrative being punctuated by good illustrations showing the London College enjoying both placid peace and reaping the whirlwind of war.

For surgeons Sir Zachary Cope, with his usual charm and penetration, contributes a brief study of the surgical lectures of Cline, Pott, John Hunter, Abernethy, and Astley Cooper, incidentally, as it were, revealing the "virtues peculiar to the spoken word," and imparting a slight nostalgia for those days of memorable discourses.

For anaesthetists Dr. Cartwright provides a finely considered paper on Humphry Davy's discovery of anaesthesia, a paper which carefully and deliberately adds further fuel to the fires of controversy on that subject.

This book, pleasingly produced by Butterworth and Company, is easy to handle and to read—and it is pleasant to find the text relieved by eleven good plates.

Some of the contributions shine too brightly to deserve relegation to the rank of "sidelights," a word which implies an understatement of the value of the book. The omission of references after each article, another sign of undue modesty, is felt less if the book is read, as no doubt was intended, as a series of pleasant bedtime stories.

JESSIE DOBSON and SIR CECIL WAKELEY. *Sir George Buckston Browne.* Edinburgh and London, E. and S. Livingstone Ltd., 1957. (The Williams and Wilkins Co., Baltimore, exclusive U. S. agents.) 143 pp., illus. $6.00.

Reviewed by HENRY R. VIETS, *Curator of the Boston Medical Library, Boston, Massachusetts.*

BUCKSTON Browne, who died in 1945 in his ninety-fifth year, was a dedicated London physician of the Victorian era, remarkably successful as a hard-working urologist who took no vacations from his practice for nearly thirty years, thus amassing an ample fortune which he ultimately gave away. Trained by another versatile Victorian, Sir Henry Thompson, thirty years his senior, Browne began his own practice in 1888, working daily in his consulting room at 80 Wimpole Street, and often far into the night. Sitting on a low stool in front of his patient, who also sat upright, he manipulated

the catheter and lithotrite with great skill and gentleness. His numerous patients scheduled for more serious operations were housed in nursing homes in the vicinity of his office, cared for by skilled nurses specially trained by him. The routine established was curious but effective, for he locked the doors of these houses each night after his last visit, and his first duty in the morning was to go around and unlock them. Browne held no hospital or teaching appointments and practised without higher surgical qualifications, for he had been failed in the final test at the Royal College of Surgeons in 1875 by a spiteful examiner who hated Sir Henry Thompson, whom Browne served as first assistant, because of his early knighthood and success in practice. This episode was a stunning blow to the recently graduated doctor, an upright, competent man. In spite of it he wrote many years later: "I did not let the terrible blow kill me. I picked myself up, knocked away the dust and ran on." But the determined Manchester boy never went near the Royal College of Surgeons for many years, although he was later to become one of its greatest benefactors.

Buckston Browne's period of success in the closing years of the last century was an era of few motor cars and telephones. One surgeon in 1900 had two automobiles, one he drove himself when he went to see patients, the other being driven by a chauffeur who was instructed to follow him in case the first car broke down. Browne, however, needed neither car nor telephone, nor would he tolerate anyone reading his letters except doctors and patients, and he never had a secretary. His surgical operations were confined to the lower genito-urinary tract, renal surgery only developing slowly after roentgen ray was discovered in 1895. His greatest skill was in catheterizing very tight stricture of the uretha, using specially designed curved metal bougies, and in removing stones from the bladder before the days of the cystoscope or radiography. Diagnosis depended in large part upon sound, the click of the metal instrument as it met the stone. Before the days of prostatic surgery he taught his patients the use of the catheter, keeping them in nursing homes until he was satisfied of their skill.

After the death of his son in 1919 and his wife in 1926, this remarkable man turned philanthropist, giving a large sum to preserve Down House as a national memorial, where Darwin had lived and written his books. He then turned to the Royal College of Surgeons who made him an honorary fellow in 1926, endowed an annual dinner and built the Buckston Browne Research Farm adjoining Down House for biological studies. He also gave a substantial amount to the Medical School of University College, fitting up a superb Common Room from the exquisite furnishings of his own home.

After the age of ninety he wrote his autobiography, much of which is incorporated into this book. The manuscript has been carefully edited and in places extended by his colleague, Sir Cecil Wakeley. It contains important facts in regard to medical education and practice in London at the turn of the century. Browne was a strong character and a great

individualist whose independence, however, was polished by his charming Victorian courtesy. Patients admired and loved him, even such men of diverse attainments as Manuel Garcia, the inventor of the laryngoscope, George Meredith, the novelist, and Robert Louis Stevenson. Considerable light is thrown on the character of these and other patients by Browne's autobiographical notes. The book is particularly of value to medical historians for the light that it throws on Victorian medicine as practised by one of its outstanding contributors. The book is splendidly illustrated, contains a list of Browne's publications and an appreciation of him as a surgeon by Sir Hugh Lett, who had married his only daughter.

JOHN BAPTISTA PORTA. *Natural Magick.* Edited by Derek J. Price. The Collector's Series in Science. New York, Basic Books Inc., 1957. ix, 7, 409, 6 pp. $7.50.

Reviewed by WALTER PAGEL, *Consultant Pathologist, Clare Hall Hospital, nr. Barnet, Herts, England.*

"So then Magick is taken amongst all men for Wisdom, and the perfect knowledge of natural things." It has nothing to do with "foul spirits, sorcery and like fancies and imaginations. In the words of Plotinus it is the science whereby inferior things are made subject to superiors, earthly are subdued to heavenly; and by certain pretty allurements it fetches forth the properties of the whole frame of the world. . . . But I think that Magick is nothing else but the survey of the whole course of Nature."

It is thus that J. B. Porta (?1535-1615) defines the subject of his book. It was first published in 1558 in four books and reprinted in several (notably Plantinian) editions until it appeared in its final form in twenty books about thirty years later. The large number of reprints of the full text bears witness to its popularity, and it is surprising that the English translation should have been delayed until 1658—just a century after its first appearance in print. At this time Porta was still a young man, though probably not as young as he himself implied in the preface (namely, only 15). He insisted from the outset that Natural Magic was concerned with the empirical observation of natural objects and nothing else. The result is a vast collection of loosely connected case histories, observations, and recipes, ranging from generation through putrefaction to grafting, magnetism, cosmetics, fireworks, distillation, and optics. "The herb Dragon-wort, both the greater and smaller, have a stalk full of sundry-coloured specks: if any man eat their root, or rub his hands with their leaves, the Viper cannot hurt him"—a fair sample to show that the backbone of Natural Magic, namely, the belief in general sympathy as expounded in "Occult Philosophies" since pre-Hellenistic times had not been broken. Yet Porta's protest against "a certain Frenchman [who] in his Book called Daemonomania, Tearms me a Magician, a Conjurer, and thinks this Book of mine . . . worthy to be burnt, because I have written the Fairies Oyntment, which I set forth onely in detestation of the frauds of Divels and Witches" sounds

not unjustified. Indeed, he seems actuated by the desire to record observations impartially and give them a chance—a sound empiricism resulting in the clear description (though not invention) of the camera obscura with and without lens and the combination of convex and concave lenses and for viewing objects at a distance and near at hand. As the editor points out, however, the descriptions are too vague to credit him more than a "primitive bifocal lens for spectacles or a doublet lens," although Porta himself claimed to have invented the telescope before Galileo or any others. Moreover, Porta was the first to get together a kind of scientific academy—the Academia Secretorum Naturae of the "Men of Leisure" (Otiosi)—and later co-operated in the foundation of the Academy of the Lynxes of which Galileo was a member. Porta's book is certainly "most browsable" to use the designation of the editor, and the facsimile reproduction perfect—by bibliophiles the book may even be called "basic."

MARCEL FLORKIN. *Un Prince, Deux Préfets. Le mouvement scientifique et médico-social au Pays de Liège sous le règne du despotisme éclairé (1771-1830).* (Médecine et Médecins au Pays de Liège, II) Liège, H. Vaillant-Carmanne, 1957. 308 pp., illus.

Reviewed by HARCOURT BROWN, *Professor of French Language and Literature, Brown University, Providence, Rhode Island.*

PROFESSOR Florkin admits that a review by the late George Sarton of the first volume of *Médecine et Médecins au Pays de Liège* in this *Journal* (1954, *9*, 471-5) is responsible for certain features of the present book. Sarton, as an expatriate Belgian, knowing that the *petite histoire* of a city even as ancient and illustrious as Liège posed problems of recognition to the foreign reader, voiced a hope for a fuller history of medicine and science in that place, as well as a general introduction to the *pays de Liège*, "for the sake of those scholars who have had the misfortune to be born elsewhere."

Candor demands that the reviewer, who is not Liégeois nor yet even Belgian, remark that Sarton's desires have not been entirely satisfied, and that much assiduous imagining is necessary to bring a picture of what Liège was and is out of the discursive charm of these diversified pages. Local historians are sometimes closely tied to their cities and regions, so much so that they do not always place their subject in perspective for the outsider; although M. Florkin's reader cannot complain of any lack of documents quoted and reproduced, or of an absence of reference to sources and syntheses, he is likely to be overwhelmed by the detail, the remarkably full annotation in which early periodicals and old archives, private and public collections of paintings, prints, medals, and sculpture, etc., are forced to yield all the facts they may contain. Perhaps it is typical that we should be given eight pages of views of old buildings and quarters of the city, as well as five pages of excerpts of old plans, but no map of Liège

as it was in 1800 or even today, nor of the principality showing some of the numerous villages and towns referred to on many pages of this copiously and even handsomely illustrated book.

A concise *Argument* foreshadowing the general pattern of the book is followed by three sections devoted respectively to medical affairs under the Prince-Bishop Velbruck (1771-84), and the two French prefects, Desmousseaux (1800-06) and Micoud d'Umons (1806-14), and a final brief conclusion on the Dutch period, which lasted from the formation of the United Kingdom of the Netherlands under Willem I (1814) to the separation of Belguim from the northern provinces in 1830. This last régime developed the University of Liège much as it has since remained, without breaking the contact with French medicine and science. As a whole, the book suggests a hope we shall be given a more extended history of these aspects of intellectual history in Liège and its province since the creation of the monarchy under Leopold I.

The reader interested in the history of science in general has to make some effort to place M. Florkin's narratives in an appropriate background, to recollect that what was a novelty in Liège in 1800 was not necessarily new in Paris, London, or Lyons, that what may have been bitterly debated in a Belgian province was already an accepted fact in Amsterdam, Boston, or Philadelphia. The book illustrates the extreme humanist attitude; it is concerned with individual persons, episodes, institutions, and looks very little at ideas to be derived from its subject matter, the general patterns of social and cultural change, the sociology of science. Of course there is a credit side in this account; unconscious of the "behavioral sciences," the author has no theory to establish, no ax to grind, no systematic outlook to determine his interpretations. As far as this reader can judge, M. Florkin is fair in his evaluations, modest in controversy, aware of the prejudices of the authors he cites, and escapes the distressing fault of local historians who write with a partisan outlook to promote a cause.

The general movement of ideas, however, is reflected in this "entertaining and instructive" (the words are Sarton's) book. Various aspects of the history of the sciences are encountered here and there: among others, crystallography à propos of Jean Demeste, on p. 79; La Mettrie appears in a discussion of Jean-Philippe de Limbourg, pp. 57ff.; and there are several pages on the introduction of inoculation, and the usual bitter controversy which attended this invasion of the entrenched inertia and intellectual stagnation of an older and still theologically controlled medical school. The period covered by this book introduced profound changes in the outlook and criteria of the technician and the scientist, as well as in the thinking of social and political philosophers. The principles and practices of French republicanism were spreading into areas where church and despot had ruled with little overt opposition, and this account of a French-speaking community outside of France proper as it underwent the influence of the French Revolution more or less by decree, has a value quite

unlike that which one would expect of a similar history of, say, Rouen or Nantes or Bourges. As *Chef-lieu* of the département de l'Ourte, Liège was administered by two intelligent and enterprising French prefects, who applied systematically, yet with much tact and understanding of local conditions, the decrees of the Paris ministries. Apparently much of what they did has remained in the institutions of the city. It is such influences which give us a clue to the universality of the work of the new governments which ruled France in the years surrounding the beginning of the nineteenth century.

Space barely permits reference to various episodes of interest to the modern reader, such as Jacques de Heusy's proposal in 1773 to divert monastic foundations to the establishment of a general hospital, an idea thwarted by the pious traditionalism prevailing under Velbruck; or the events of the Revolutionary period, 1790-94, and their direct influence on the medical life of the city. M. Florkin devotes interesting pages to the *Esprit des Journaux,* which under successive editors reprinted various articles from other periodicals from 1772 to 1819, and occasionally offered space to local scholars and writing scientists, and he has an instructive passage on the much-debated Ecoles Centrales, pp. 232-38. The whole book is a mine of information, even if one has to do a little mining to get at it; it is well printed, with the usual index of names, and very few errors. I note that pp. 204 and 205 are out of their proper order.

KENNETH DEWHURST. *The Quicksilver Doctor. The Life and Times of Thomas Dover, Physician and Adventurer.* Bristol, John Wright and Sons, Ltd., 1957. 192 pp. 21s.

Reviewed by CHARLES F. MULLETT, *Professor of History, University of Missouri, Columbia, Missouri.*

ALTHOUGH there were greater physicians and far better scientists in the eighteenth century, few indeed had a more lasting fame than Thomas Dover (1662-1742). That fame is owing to the powder—compounded originally of opium, salt-petre, tartar, ipecac, and licorice—which bore his name and has survived to the present. Nevertheless, as this volume makes clear, his fame stood on other foundations, some of them perhaps more legitimate. Dover, born of good family, was an adventurer as well as doctor; he was a persistent, even arrogant, controversialist; he was a popular physician who redressed his errors with benefits.

As an adventurer he took a prominent part, owner and officer alike, on a privateering voyage into the South Seas, which lasted from September, 1708, to November, 1711. The expedition proved a great success, even though it cost heavily in lives and led to frustrating negotiations with the East India Company, and Dover made a solid profit. On the whole he was a good officer. The voyage was memorable also for a romantic episode, the rescue of Alexander Selkirk—"Robinson Crusoe"—from Juan Fernandez after a four-year exile.

It is as physician, however, that Thomas Dover must chiefly be remembered. His training was above the average, not because of any formal excellence, for he had only the inadequate curriculum of Oxford and Cambridge, but because after gaining his M.B. he went as house pupil to Thomas Sydenham. The influence of this great physician was manifest throughout Dover's medical life. As a doctor Dover was mainly distinguished, apart from his powder, for *The Ancient Physician's Legacy to his Country* (1732; 6th ed., 1742), for his belief in the cooling regimen in the treatment of smallpox and fevers, and for the abundant ministration of crude mercury which he prescribed for hysteria, asthma, infertility, syphilis, ulcers, appendicitis, scrofula, elephantiasis, and intestinal disorders. Such generous and diverse prescription won him the title, "the quicksilver doctor." It also, along with his cooling regimen, brought him into bitter controversy with contemporaries, great and small, and gave substance to widespread charges of quackery. Quack he may ofttimes have been—and herein shared a role with many—but his methods, particularly in those respects where Sydenham had been his teacher, achieved considerable success. Scarcely needful to say he defended himself vigorously, and if nothing else the controversies helped to improve medical knowledge and practice.

The present volume sets forth Dover's career as fully as may be, and in as fair a light as the facts warrant. Because the author suffered from a paucity of materials about many facets of Dover's life he has on occasion been driven to pad the life with the times. While not of itself superfluous, this padding adds nothing to our knowledge and is often misinforming. For instance, the picture of medical knowledge, training, and practice is unrelievedly dismal—and quite at variance with Dover's own professional career. The author stresses the quaint and the quack, the cynical and the selfish. These abounded in all faith but they were matched by more admirable and more fertile qualities. The author's practice in these matters is perhaps the consequence of his sources, for he has in large measure pieced this aspect of his story out of anecdotage and controversy. Such materials have value, to be sure, but they are incomplete, and it would have been well for our author to reverse a very sound prescription and read a new book every time he read an old one. Otherwise, however, he has told the story of the "quicksilver doctor" in such a fashion as will require no successor.

ANNE WILKINSON. *Lions in the Way.* A Discursive History of the Oslers. New York, St. Martin's Press, 1958. 274 pp., illus. $6.50.

Reviewed by HERBERT THOMS, *Professor Emeritus of Obstetrics and Gynecology, Yale University School of Medicine.*

THE author of this book, Anne Wilkinson, is the granddaughter of Sir Edmund Osler who was a brother of Sir William Osler, Justice Featherstone Osler, and Britton Bath Osler, Q.C., all distinguished Canadians. They were sons of the Reverend Featherstone and Ellen Osler of Dundas, On-

tario, who both lived to see eight of their children grow up and marry, Ellen passing the century mark in 1906 and Featherstone dying at the age of 89 in 1895. This book is chiefly centered around the lives of these two, their ancestry and their progeny. The story is told through personal correspondence, notations from diaries, and the author's memories and impressions.

In 1831 Featherstone Osler, a native of England, at the age of 26 was an officer in the Royal Navy planning a career in that service and "at first he did not see the lions in his way." Six years later, on 20 June 1837—the day Victoria became Queen of England—it was the Reverend Featherstone Osler who with his bride Ellen arrived at Bond Head, Toronto, to assume the duties of a solitary clergyman in 240 square miles of territory in the Canadian bush. For years he and his wife were to be occupied with other things beside church affairs and the raising of a large family. Farming, organizing schools and libraries, and attending the sick were included in the tasks they set for themselves. Their first parsonage Ellen described as a "shed . . . in a clearing in a wood, one room upstairs and one down, in which cattle had been wont to shelter."

The early years and family relationships of William Osler have greatest interest for us. Told in considerable detail, as may be surmised, they were not without humorous aspects. Many intimate episodes enrich the book. The author recalls Harvey Cushing's visit to her grandfather's home collecting material for his *Life of Sir William Osler*. The children of the household, mistaking his name for Cushion, promptly changed it to Pincushion "as more suitable to what we imagined must be a prickly nature." Living with the Oslers through this book is a real delight.

The work has importance in Canadian history for it is a significant chapter in the transformation of a wilderness into a nation. It is written with penetration and feeling by a writer who as a Canadian poet is credited with other literary accomplishments. This reviewer gives it a high recommendation, for it rightfully belongs on the shelf beside Cushing's prize-winning biography of Sir William. Presumably, the title finds its origin in the Book of Proverbs, XXVI, 13. "The sluggard saith, There is a lion in the way; A lion in the streets."

RITCHIE CALDER. *Medicine and Man, The Story of the Art and Science of Healing*. A Mentor Book. New York, The New American Library, 1958. 256 pp., $0.50. (Also available in cloth binding from George Allen & Unwin Ltd., London).

Reviewed by FRED B. ROGERS, *Associate Professor of Preventive Medicine, Temple University School of Medicine, Philadelphia, Pennsylvania.*

THIS book, a concise history of the healing arts, gives a vivid account of man's unending quest for health and longevity. It presents in readable form a popular account of medical progress through the ages, from the

primitive rituals of the witch doctor and priest-physician to the miracle drugs and complex surgery of recent times.

Written in an engaging, informal style, *Medicine and Man* tells how man slowly and painfully found his way to medical knowledge. This knowledge often came from unusual sources—Egyptian embalmers, Greek sculptors, Roman gladiators, executed criminals, a village wise-woman, and country milkmaid. Dedicated workers in science such as Vesalius, Harvey, Jenner, Pasteur, Roentgen, Fleming, Florey, and Salk pushed forward the frontiers, tapping the vast potentials of modern medicine. The evolution of the healing arts, however, also includes many curiosities and lucky accidents, some of which the author duly acknowledges.

Mr. Ritchie Calder, Science Editor of the *London News Chronicle,* has written an interesting story of medical progress from shaman to atomic scientist. Miscellaneous events in this story, ranging from the crude to the intricate, are purposely not arranged in an orderly time sequence. This planlessness, however, does not detract from the author's clever style of writing and high level of accuracy. The latter part of the book, describing modern times, is more orderly and specific in subject matter.

Mr. Calder has reported many important discoveries in medicine, surgery, anesthesia, physiology, psychiatry, and public health in a communicative manner which has popular appeal. A nontechnical volume, *Medicine and Man* will be read with interest by doctor and patient alike.

MOSHE BEN MAIMON (MAIMONIDES). *Regimen sanitatis.* Hebrew translation by R. Moshe ibn Tibbon, edited by Suessmann Muntner. Jerusalem, Mossad Harav Kook, 1957. English preface and introduction vi-xviii pp.; Hebrew 6-254.

Reviewed by JOSHUA LEIBOWITZ, *Lecturer in the History of Medicine, Hebrew University, Jerusalem.*

STUDENTS of medieval medicine will be highly pleased to know that Maimonides' famous *Regimen sanitatis* has appeared in a new edition prepared by Dr. Suessmann Muntner. Moses Maimonides (1135-1204) addressed his small treatise to the Sultan al-Malik al-Afdhal, Saladin's son, as an exposition on the king's melancholy which was combined with gastro-intestinal disturbances. It was written in Arabic; however, it exerted its medico-historical influence not in the original, but in its Hebrew and Latin translations and editions.

The non-Orientalist will be interested first in the Latin editions of the Regimen. The first of these, Florence, *ca.* 1477, is a charming little incunable, now extremely rare; the Cushing collection at Yale possesses a copy. It is based on the translation by Armengaud de Blaise (1290), a Christian scholar, sometime rector of the Medical Faculty at Montpellier, who knew sufficient Hebrew to translate the work from this language. It adds zest to the printing history of this treatise of a great Rabbi that it was set by

the nuns of the convent of St. Jacob of Ripoli. They worked under the technical guidance of the German printer, Johannes Petri, of Mayence. The printers added at the end: "Laus Deo et Mariae virgini." The book was very popular in the West and was printed six times. There exists a modern facsimile edition of this Latin version which my late friend Dr. Herbert Grossberger published in 1931 at my suggestion. For that publication I secured the collaboration of Professor A. Freimann, who wrote an excellent short introduction, in German, partially based on Steinschneider (Berlin, Hebraeische Uebersetzungen, 1893, pp. 769-72).

A scholarly edition of the *Regimen* (Arabic original and translation into German) was published in *Janus*, 1923-27, by Dr. H. Kroner. An accomplished philologist, trained by Steinschneider, and living at a small town remote from centers of learning, Kroner is remembered as a belated replica of Francis Adams who under similar conditions translated Hippocrates and Aretaeus.

The volume under review interests primarily the Orientalists since it represents a critical edition of the Hebrew translation by Moses ibn Tibbon (1244). It compares very favorably with the older Hebrew editions, e.g. Prag 1838, Jerusalem 1885 of the same translation in the preparation of which only one manuscript was used, while Dr. Muntner's edition is based on the comparison of four different Mss. and, in many instances, of the Arabic original and the old Latin version.

The new text is accompanied throughout by numerous explanations of the more difficult passages. Some of these require comment. For instance, on page 50 Maimonides suggests "that the natural, animal and vital forces of the patients be strengthened." These the editor explains as "bodily, appetite (?!), and psychic," while the correct meaning refers to the three spirits (natural, animal, and vital) so prominent in Galenic biological concepts. On page 85 Maimonides speaks of means "for opening the obstruction of the hollow nerves." This, the editor states, refers to arteries, while the true meaning is the optic nerves which some of the ancients believed to be hollow.

The volume closes with a disproportionately long essay in which the editor expounds his own concepts of psychotherapy. This is not usual in editing an old text. However, it may stress Maimonides' importance in the history of psychosomatics, a point the reviewer has presented in a recent publication (*Bull. Hist. Med.*, 1957, *31*, 309-17; On the Regimen, pp. 316-17).

The volume includes four useful indices in Hebrew, Arabic, Greek, and other languages and four appendices. One of the latter is in fact the first printing of the Hebrew translation of the *Regimen sanitatis by* Ibn Roshd, Maimonides' contemporary.

An outstanding feature is a scholarly, detailed, and annotated alphabetical list of drugs mentioned in the treatise. This is well organized and reflects the full competency of the editor in this field (pp. 86-127).

Dr. Muntner shares the opinion of the reviewer *(Korot,* 1955, *1,* 213-19; English summary, pp. 1-3) that Maimonides' medical works should be made available to the profession in Arabic and Hebrew, and accompanied by a competent modern translation into English or another commonly understood European language. This should be published along the lines of Loeb's Classical Library. In the meantime Dr. Muntner's edition will be of the utmost value to all who are able to read it and to benefit from Maimonides' most characteristic, concise, and philosophically minded opus.

RALPH S. BATES. *Scientific Societies in the United States.* 2nd ed. New York, Columbia University Press, 1958. ix, 297 pp. $6.50.

Reviewed by BROOKE HINDLE, *Associate Professor of History, New York University, University Heights, New York City.*

THIS second edition of Mr. Bates' pioneer book on scientific societies in the United States is testimony to the service performed by the first edition which was published only thirteen years ago. It has provided for the historian—and more especially for the scientist, the publicist, and the policy maker—an excellent guide to the bewildering maze of societies which have proliferated in this country since the first feeble attempts of the eighteenth century. It continues to be the best chronological outline of the foundation and general character of American scientific societies.

The second edition contains two important improvements: a chapter has been added bringing the story down to 1957, and the bibliography has been revised to include recently published works related to every part of the study. The resultant bibliography is excellent. It is arranged so that general works as well as works pertaining to a specific society can be conveniently located. The final chapter has the same character as the others which precede it, but because societies have multiplied so rapidly in recent years, it more frequently than ever displays the appearance of a list or catalogue rather than of a historical study. More than ever the author has to be content with placing groups of societies in categories, giving their founding dates, and forgetting them. Even this has the virtue of revealing the areas in which organizing activity has been conspicuous. The contrast of these spare and disappointing lists with occasional descriptive passages is striking. Mr. Bates is particularly successful in untangling the organizational activities of UNESCO and in explaining the International Council of Scientific Unions.

The virtues and faults of the chapters included in the first edition remain what they were originally. The text has not been revised despite the inclusion in the biliography of many works which have enriched our understanding of episodes stressed by Mr. Bates.

To this reviewer, the principal deficiency of the book is the inadequacy of interpretation and understanding. The book is more than a chronological catalogue of the founding of societies. If it were not, it

would certainly be inferior to the handbooks of current societies which list more societies than Mr. Bates can consider and which always supply more information about each. Mr. Bates has relied primarily upon the arrangement of his societies in topical groups within chronological chapters to provide his interpretation. He seeks to deal with development and growth by characterizing the activities of the longer-lived societies anew in each chronological chapter and by relating their work to the organizational activities of that period or to the political and social climate of the time. The result is that neither the individual society nor the relationship of scientific organizations to science and society is well interpreted.

Perhaps the difficulty lies in the brevity of the book. There is very little space for exposition or interpretation. Yet, even the first chapter, which is devoted to the eighteenth century and has only a handful of societies to consider, fails to display true understanding of the era.

Nevertheless, this book has demonstrated its utility and it will continue to be used. The careful chronological groupings of societies and the bibliography are of real value.

RICHARD H. SHRYOCK. *National Tuberculosis Association 1904-1954. A Study of the Voluntary Health Movement in the United States.* New York, National Tuberculosis Association, 1957. 342 pp. $3.50.

Reviewed by ESMOND R. LONG, *Professor Emeritus of Pathology, University of Pennsylvania, Philadelphia.*

THE subtitle of this compact and informative book is quite as significant as its major caption. Shryock is well known for his studies of the origins and development of public health practice in the United States. The role of voluntary health organizations in that development is less appreciated than it should be. The author's wide connections have made him eminently fitted to remedy the defect.

The volume was designed to commemorate the accomplishments of the National Tuberculosis Association on its fiftieth anniversary. Shryock has done this in a way that sets the Association's program against a background of rapidly developing community interest in public health in this country. As he notes, in the mushrooming of voluntary health movements in recent years, the public is now apt to take them for granted and even be critical of the huge sums required for their operation. Fifty years ago, however, there were no such organizations and there could be no such criticism. A group dedicated to the conquest of tuberculosis saw the need for public concern and founded a society, the National Tuberculosis Association, which paved the way and proved the model for all the other voluntary health associations. The devotion of the early crusaders, the manner in which they captured the interest of the public, the part they played in stimulating city, county, state, and national government to greater effort in the field, the later close cooperation of the Association with these

agencies, the part played by the Association in research and education on tuberculosis, are all well portrayed in this book. Administrative practice, decentralization of operation to state and local affiliates, the sale of Christmas seals to furnish the necessary income, the percentage contributory plan that finances local, state, and national organizations—all these too are set forth in clear fashion.

The account traces the history of citizen effort in a vital public health field, and also indicates the kinds of effort that succeeded or failed, furnishing useful information for all concerned with a type of public enterprise that seems destined to play a large part in American and other free societies in the near future. The careful documentation, which was achieved through the author's close contacts with officials and staff of the National Tuberculosis Association, is excellent.

As a general historian Shryock never forgets the larger scene. Both the opening and closing chapters tie the story of the tuberculosis crusade to the broad problem of medical progress. Shryock also notes the concern of leaders in the voluntary fight against tuberculosis, in these years of success, with the best disposition of their organization and knowledge in the future. There is more than a hint that the National Tuberculosis Association, which led the way in citizen organization against disease in this country, may pioneer in the adaptation of this great resource to the conditions of modern society in which government has now assumed the major responsibility.

H. H. CUNNINGHAM. *Doctors in Gray,* The Confederate Medical Service. Baton Rouge, Louisiana State University Press, 1958. xii, 339 pp., illus. $6.00.

Reviewed by ROBERT J. T. JOY, *Captain, MC, USA, Walter Reed Hospital, Washington, D. C.*

BOOKS about the Civil War have appeared in huge numbers in the past few years. No important topic has been neglected, but discussion of the medical history of the Confederacy has been scattered and mainly limited to chapters in larger texts.

Dr. Cunningham has summarized the medical problems and experience of the Confederate States Army. He begins with a review of the status of medical practice and physicians in the South in April 1861. Organizing the medical department, procuring supplies, building hospitals, and the training of military surgeons are described in the first two-thirds of the book. Three chapters, "Causes of Disease," "Prevalence and Treatment of Disease," and "Surgery and Infection," contain the scientific and technical information.

It is difficult to decide for what audience the author intended his work. The general reader will rebel at tedious writing and pages of prose statistics, and will be disappointed at the lack of human interest. Surely the

CSA surgeons were not the pale and pallid personalities that peer out from these pages. Medical historians will find this primarily a Quartermaster history, concerned more with supply and "structural organization–chain of command" rather than with medicine. No attempt has been made to use even a little of the great store of anecdotal material available. The physician will object to inaccuracies such as "even today the cause of smallpox is not known." Vitamin A deficiency should have explained the mystery surrounding "nyctalopia–a strange malady associated with scurvy and nutritional deficiency." For the Civil War 'fanatic,' there is no discussion of the war as such–one would think that all those casualties were being manufactured by a factory off in the wings. Those south of the line will not like the battle of Sharpsburg being given its Yankee name of Antietam.

The author has provided some items worth noting, such as the front line anatomical society of Mississippi surgeons with the subjects for dissection "easily procured from beyond the lines." The CSA may have been the first to establish a "V.A. Hospital," in March, 1865, then too late to be useful. The law provided that all former soldiers who suffered from old wounds or deformities might receive treatment at Government expense. There are illustrations–mostly of Confederate medical officers–and a woefully weak statistical appendix.

One is left with a vague air of dissatisfaction with this book–it *could* have been very good. *Doctors in Gray* inevitably will invite comparison with Dr. Adams' *Doctors in Blue.* A fresh re-reading of the latter compels me to state that the South has lost again.

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